

# EXHIBIT 10

**UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF NEW YORK**

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SIMO HOLDINGS INC.,

Plaintiff,

**CIVIL ACTION NO. 18CV5427 (JSR)**

-v-

HONG KONG UCLOUDLINK NETWORK  
TECHNOLOGY LIMITED, AND  
UCLOUDLINK (AMERICA), LTD.,

Defendants.

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**PLAINTIFF SIMO HOLDINGS INC.'S DISCLOSURE OF ASSERTED CLAIMS AND  
INFRINGEMENT CONTENTIONS PURSUANT TO LOCAL PATENT RULE 6**

Plaintiff SIMO Holdings Inc. (“Plaintiff” or “SIMO”) submits its Patent Rule (“P.R.”) 6 Disclosures to Defendants Hong Kong uCloudlink Network Technology Limited and Ucloudlink (America), Ltd. (collectively, “uCloudlink” or “Defendants”) with respect to U.S. Patent No. 8,116,735 (“the ’735 patent”) and U.S. Patent No. 9,736,689 (“the ’689 patent”) (collectively, “Asserted Patents”).

Discovery in this matter has just begun and SIMO’s investigation regarding infringement is ongoing. To this date, SIMO has not received any discovery responses or document production from uCloudlink. These disclosures are therefore based on information that SIMO has been able to obtain to date regarding the function and operation of the Accused System and Method (as defined below), together with SIMO’s present understanding of the meaning and scope of the asserted claims. SIMO reserves the right to supplement and/or amend its

disclosures as additional information is ascertained through discovery and after the Court has construed the Asserted Patents.<sup>1</sup>

### **RULE 6 DISCLOSURES**

Pursuant to P.R. 6, SIMO, by and through its undersigned attorneys, states as follows:

**A. *Each claim of each patent-in-suit that is allegedly infringed***

SIMO asserts that uCloudlink has infringed and continues to infringe, has contributed to and continues to contribute to the infringement of, and has actively induced and continues to actively induce others to infringe at least the following claims of the Asserted Patents (“Asserted Claims”):

Claims 1–4, 8, 9, 13, and 14 of the ’735 patent;

Claims 1, 5, 7, 8, 10–14, 19, and 20 of the ’689 patent.

This identification is tentative. SIMO reserves the right to supplement and/or amend its disclosures to identify additional claims infringed by uCloudlink as discovery is undertaken, in accordance with the Local Rules and the Court’s procedures.

**B. *Each product or process of each opposing party of which the party claiming infringement is aware that allegedly infringed each identified claim***

**a. Accused System and Method**

Plaintiff accuses uCloudlink’s Glocalme G2, G3 and U2 Series WiFi hotspot devices and S1 mobile phone, and their provision, use, testing, and operation, of directly infringing the ’735 and ’689 patents. The term “Accused System and Method” includes uCloudlink’s Glocalme G2,

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<sup>1</sup> In many portions of SIMO’s P.R. 6 disclosures, SIMO has gone beyond the disclosure required by P.R. 6. These additional disclosures and citations are made for the benefit of uCloudlink. SIMO in no way confines its contentions to the specific citations of evidence and explicitly reserves the right to rely on additional or different evidence as the case moves forward through fact discovery, expert discovery, and trial. Furthermore, any omission of any other specific citation to the Accused System and Method or documents related thereto does not constitute a waiver of SIMO’s right to raise any issues related to the Accused System and Method or other documents related thereto at a later date.

G3 and U2 Series WiFi hotspot devices and S1 mobile phone, and all substantially similar mobile roaming devices and systems. The term “Accused System and Method” also includes the associated hardware, software, data, processes and methods related thereto.

Plaintiff further accuses Defendants of indirectly infringing the ’735 and ’689 patents through providing, authorizing, and instructing regarding the Accused System and Method to others, including its customers. Installing or activating the Accused System and Method and the operation thereof directly infringe the Asserted Claims. Defendants intend to cause infringement by its customers, users and operators. Defendants further instruct users to operate the Accused System and Method in an infringing manner. Defendants further instruct users to configure and operate the Accused System and Method in an infringing manner. Defendants also provide support services for the Accused System and Method, including providing instructions, guides, networked information, and technical support.

The Asserted Claims include elements that are implemented, at least in part, by proprietary electronics and software in the Accused System and Method. The precise designs, processes, and algorithms used in them are held secret, at least in part, and to that extent are not publicly available. An analysis of Defendants’ documentation and/or source code is necessary to fully and accurately describe all infringing features and functionality of the Accused System and Method. Accordingly, Plaintiff reserves the right to supplement these contentions after such information is made available to Plaintiff. Furthermore, Plaintiff reserves the right to revise these contentions as discovery in the case progresses, in view of the Court’s final claim construction in this action and in connection with the provision of its expert reports.

SIMO reserves the right to supplement and/or amend this disclosure to identify and accuse additional uCloudlink Accused System and Method released, developed, or made available by uCloudlink after the date on which these disclosures are served, or of which SIMO was not aware at the time of these disclosures.

**b. Claim Charts**

SIMO's claim charts identifying specifically where each element of each Asserted Claim is found within the Accused System and Method are attached as Exhibits 1 to 2. The charts are based on information currently known to SIMO and contain illustrative (not exhaustive) examples of presently-known infringement of the Asserted Claims.

**C. Literal Infringement and Doctrine of Equivalents**

Based on its present understanding of the meaning and scope of the claim language, and the information currently known to it concerning the Accused System and Method, and without notice of any non-infringement position from uCloudlink, SIMO asserts that uCloudlink literally infringes each element or step of the Asserted Claims. However, to the extent any claim element or step is found to be not literally present in or performed by the Accused System and Method, based on the Court's claim construction or uCloudlink's arguments, such claim element or step is satisfied under the doctrine of equivalents because any difference between such claim element or step and the element or step of the Accused System and Method is insubstantial. In other words, the element or step of the Accused System and Method performs substantially the same function, in substantially the same way, to achieve substantially the same result. As discovery has just begun and the Court has not construed the Asserted Claims, SIMO reserves the right to supplement and/or amend its contentions to further detail uCloudlink's infringement under the doctrine of equivalents as necessary.

Date: August 27, 2018

/s/ Matthew J. Weldon

Matthew J. Weldon  
**K&L Gates LLP**  
 599 Lexington Avenue  
 New York, NY 10022  
 Tel (212) 536-4042  
 Fax (212) 536-3901  
 Matthew.weldon@klgates.com

Howard Chen (Admitted *Pro Hac Vice*)

Harold H. Davis, Jr. (Admitted *Pro Hac Vice*)

**K&L Gates LLP**

Four Embarcadero Center, Suite 1200

San Francisco, CA 94111

Howard.chen@klgates.com

harold.davis@klgates.com

Tel: 415.882.8200

Fax: 415.882.8220

Min Wu (Admitted *Pro Hac Vice*)

Yang Liu (*Pro Hac Vice* Pending)

**K&L Gates LLP**

620 Hansen Way

Palo Alto, CA 94304

min.wu@klgates.com

yang.liu@klgates.com

Tel: 650.798.6700

Fax: 650.798.6701

Gina A. Jenero (*Pro Hac Vice* Pending)

**K&L Gates LLP**

70 W. Madison Ave.

Suite 3300

Chicago, IL 60602

Gina.jenero@klgates.com

Tel: 312.372.1121

Fax: 312.827.8000

**ATTORNEYS FOR PLAINTIFF  
SIMO HOLDINGS INC.**

**CERTIFICATE OF SERVICE**

I, Matthew J. Weldon, hereby certify that on August 27, 2018, a copy of the foregoing document was served via electronic mail on the counsel of record for Defendants.

/s/ Matthew J. Weldon

Matthew J. Weldon

**Exhibit 1****Exemplary Infringement Claim Chart for U.S. Patent No. 8,116,735****uCloudlink Accused System and Method**

<b>Claim 1</b>	<b>uCloudlink Accused System and Method</b>
<p>[1pre] A method of operating a foreign wireless communication device in a local communication network as a virtual local communication device, said method comprising:</p>	<p>To the extent the preamble is determined to be limiting, uCloudlink's Accused System and Method comprise a method of operating a foreign wireless communication device in a local communication network as a virtual local communication device (e.g., GlocalMe® Inside based on CloudSIM technology).</p> <div data-bbox="594 729 1635 1045" data-label="Image"> </div> <p>(Source: <a href="https://www.glocalme.com/mall/wifi?type=g3&amp;qiso=US">https://www.glocalme.com/mall/wifi?type=g3&amp;qiso=US</a>)</p> <p>“GlocalMe® Inside is developed based on CloudSIM technology. Under the service, users do not need to change the SIM card for mobile network connection even visiting different countries. Through the world phone, GlocalMe® Inside will access to the best local mobile network according to user's location. It supports network service in more than 136 countries. This is the true value of GlocalMe® Inside.”</p> <p>(Source: <a href="https://www.ucloudlink.com/html/20180629/176.html">https://www.ucloudlink.com/html/20180629/176.html</a>)</p>

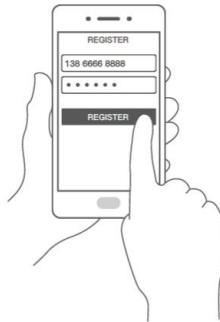
	<p>“In the beginning of 2018, uCloudlink released the World Phone S1 and P1 at MWC 2018 with a great market response. This time, at CeBIT 2018 in Germany, uCloudlink introduced the latest innovations to users – the World Phone P2, which is even more attractive towards its features, appearance and pricing.</p> <p>First of all, the build-in GlocalMe® Inside mobile data service is the essential feature of World Phone. With CloudSIM, the core and patented technology of GlocalMe® Inside, users can freely connect the data networks in over 100 countries without the limitation of data roaming, for example, ensure superior data connection service with intelligent best local mobile network matching.</p> <p>In the beginning of 2018, uCloudlink released the World Phone S1 and P1 at MWC 2018 with a great market response. This time, at CeBIT 2018 in Germany, uCloudlink introduced the latest innovations to users – the World Phone P2, which is even more attractive towards its features, appearance and pricing.</p> <p>First of all, the build-in GlocalMe® Inside mobile data service is the essential feature of World Phone. With CloudSIM, the core and patented technology of GlocalMe® Inside, users can freely connect the data networks in over 100 countries without the limitation of data roaming, for example, ensure superior data connection service with intelligent best local mobile network matching.”</p> <p>(Source: <a href="https://www.ucloudlink.com/html/20180703/181.html">https://www.ucloudlink.com/html/20180703/181.html</a>)</p>
<p>[1a] enabling an initial setting of said foreign wireless communication device for enrolling said foreign wireless communication device in service, wherein said initial setting is based on communications between said foreign wireless communication device and a remote administration system,</p>	<p>uCloudlink’s Accused System and Method comprise enabling an initial setting (e.g., registration, activation and/or login) of said foreign wireless communication device for enrolling said foreign wireless communication device in service, wherein said initial setting is based on communications (e.g., the accused device connecting to service) between said foreign wireless communication device and a remote administration system (e.g., uCloudlink’s “PaaS” platform).</p> <p>✔ <b>How to start my package? Can I select the specify package?</b></p> <p>Once you switch on the GlocalMe device and connect to the Internet, the data package related to your location will be activated automatically. When the account carries more than one package can be used locally, package which purchased early time will be consumed in priority. Users cannot select packages by manual at the moment. You can return the activated data packages within 7 days of purchase. The credits will back to your GlocalMe account.</p>



(Source: <https://www.glocalme.com/service/question?giso=US>)

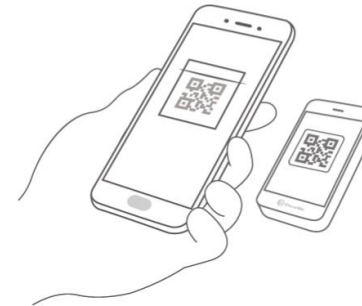
## 2 Register a GlocalMe Account (in APP)

- Press **Login** → **Register**
- Follow the step to register an account  
(You can register by email or mobile number)



## 4 G3 Activation

- Open GlocalMe APP
- Press **My Device** → **Activate Device**
- Scan the QR-Code (Step 3) on G3
- Re-start your G3 after activation success



(Source: <https://www.glocalme.com/service/instruction>)

<
Register by E-mail

Register by E-mail

Password

Place of residence
United States of America
>

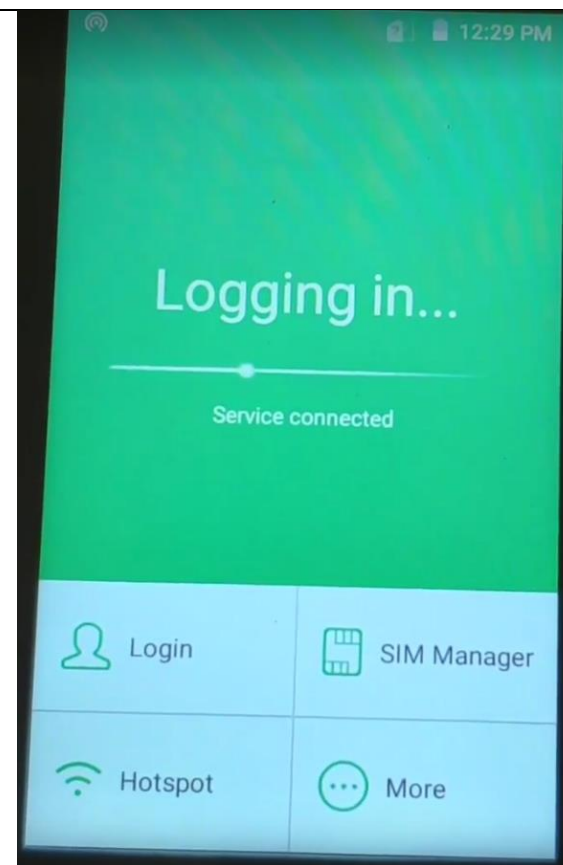
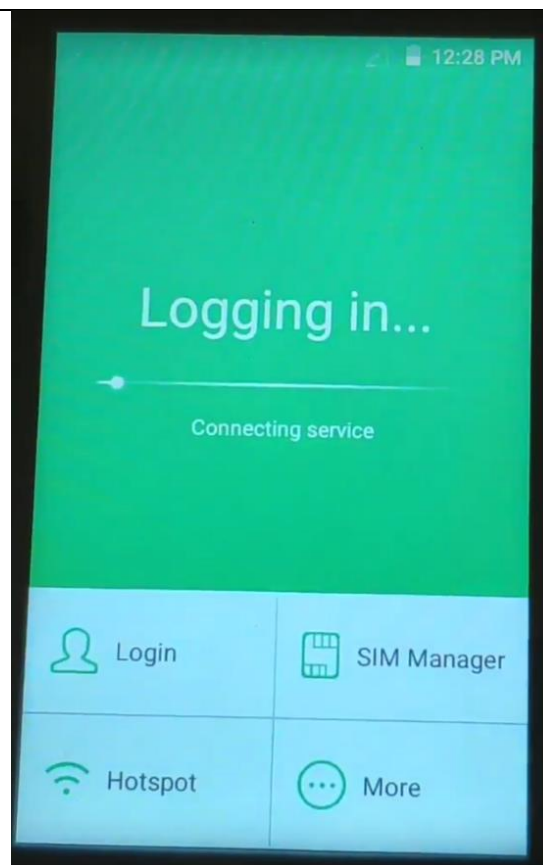
☐ I agree to [the User Agreement](#) and [Privacy Policy](#)

Register

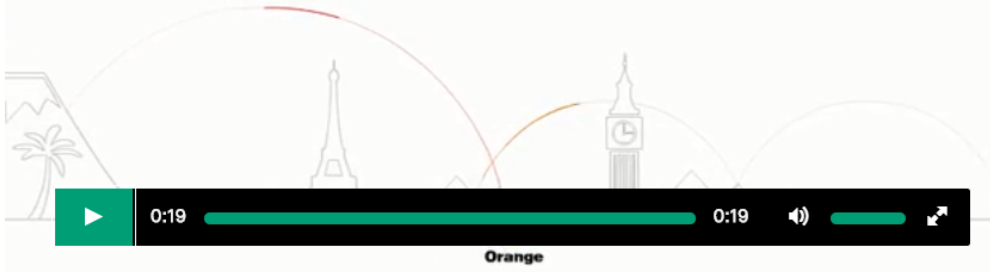
(Glocalme App)

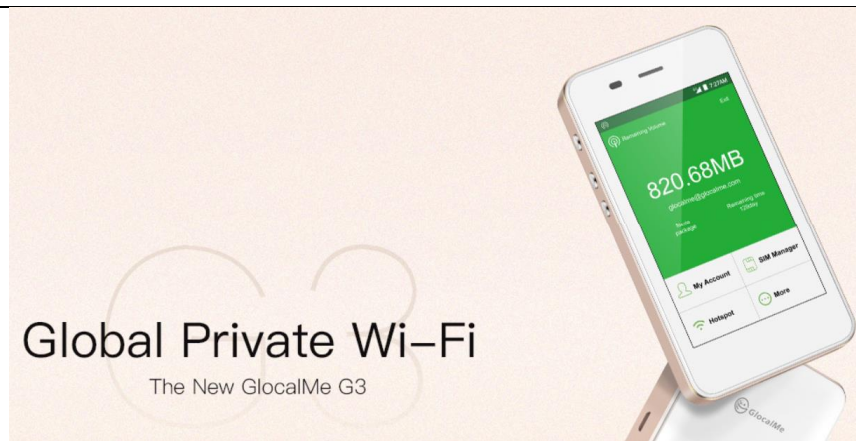


(Glocalme G3)



(Glocalme G3)

	<h2>How it works</h2>  <p><b>Cloud SIM - The smart switch between mobile networks in over 100 countries</b></p> <p>Through our patented Cloud SIM technology, GlocalMe taps into a world's worth of SIM cards that are located throughout the globe. Our SIM cloud continues to grow leaps and bounds as we tap into new countries. By turning on the G2, your device will find the most optimal network and the corresponding SIM card in the cloud SIM which starts to convert the local mobile connection into Wi-Fi signals, making sure that it's within "domestic" roaming boundaries, and saving you, the user, from international charges.</p> <p>(Source: <a href="https://www.kickstarter.com/projects/787756203/glocalme-kills-sim-card-and-roaming-pains/description">https://www.kickstarter.com/projects/787756203/glocalme-kills-sim-card-and-roaming-pains/description</a>)</p>
<p>[1b] said foreign wireless communication device comprises a foreign wireless client and an extension unit which are coupled with each other, said extension unit wirelessly communicating directly with said foreign wireless client,</p>	<p>In uCloudlink's Accused System and Method, the foreign wireless communication device comprises a foreign wireless client and an extension unit which are coupled with each other, said extension unit wirelessly communicating directly with said foreign wireless client (e.g., Wi-Fi connection).</p>



(Source: <https://www.glocalme.com/mall/wifi?type=g3&giso=US>)

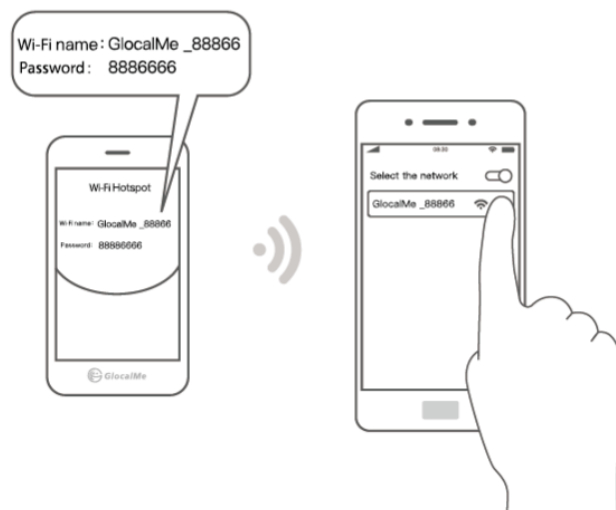


(Source: <https://www.amazon.com/GlocalMe-Hotspot-Upgraded-Worldwide->

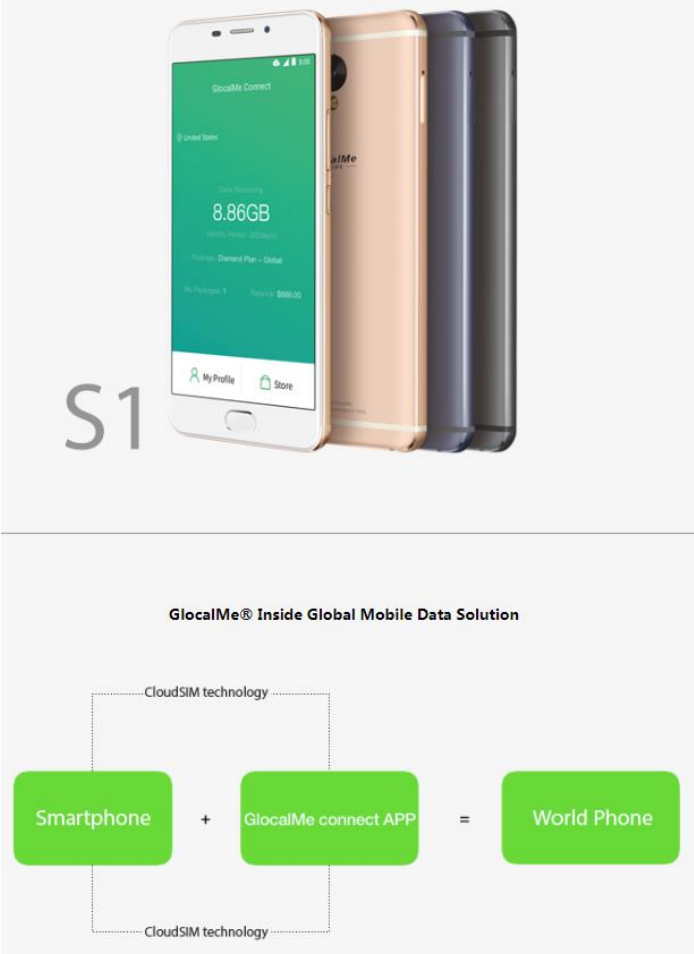
[International/dp/B072KKF37M/ref=sr\\_1\\_3?ie=UTF8&qid=1528224511&sr=8-3&keywords=glocalme\)](https://www.glocalme.com/service/instruction?qiso=US)

## 5 Connect GlocalMe Wi-Fi

- Press **Hotspot** on G3 and find the Wi-Fi name and password
- Connect your mobile device in Wi-Fi setting



(Source: <https://www.glocalme.com/service/instruction?qiso=US>)

	 <p>(Source: <a href="https://www.ucloudlink.com/html/world-phone/">https://www.ucloudlink.com/html/world-phone/</a>)</p>
[1c] said local communication network and said remote administration system, and said remote	uCloudlink's Accused System and Method comprise said local communication network and said remote administration system (e.g., uCloudlink's "PaaS" platform), and said remote administration system further comprises at least one authentication server, at least one provisioning server, at least one communication server, at least one subscriber database, at least one routing database, and at

administration system further comprises at least one authentication server, at least one provisioning server, at least one communication server, at least one subscriber database, at least one routing database, and at least one authentication bank having a plurality of subscriber identity modules (SIMs), phones and authentication data, and

least one authentication bank having a plurality of subscriber identity modules (SIMs) (e.g., modules within uCloudlink's "PaaS" platform), phones and authentication data (e.g., SIM profiles within uCloudlink's "PaaS" platform), and wherein said at least one authentication server and said at least one provision server are coupled to a data network.

## 2 Register a GlocalMe Account (in APP)

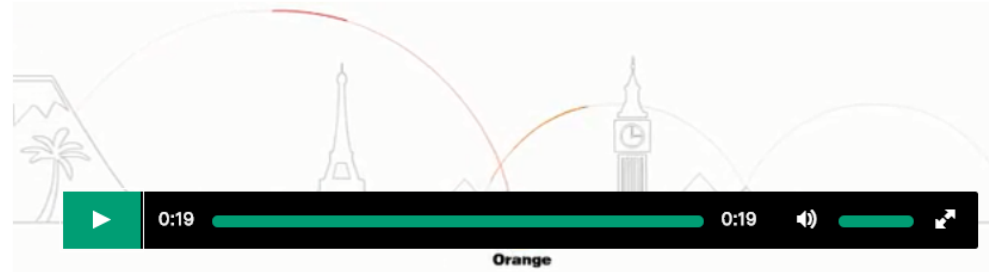
- Press  →
- Follow the step to register an account  
(You can register by email or mobile number)



(Source: <https://www.glocalme.com/service/instruction?qiso=US>)



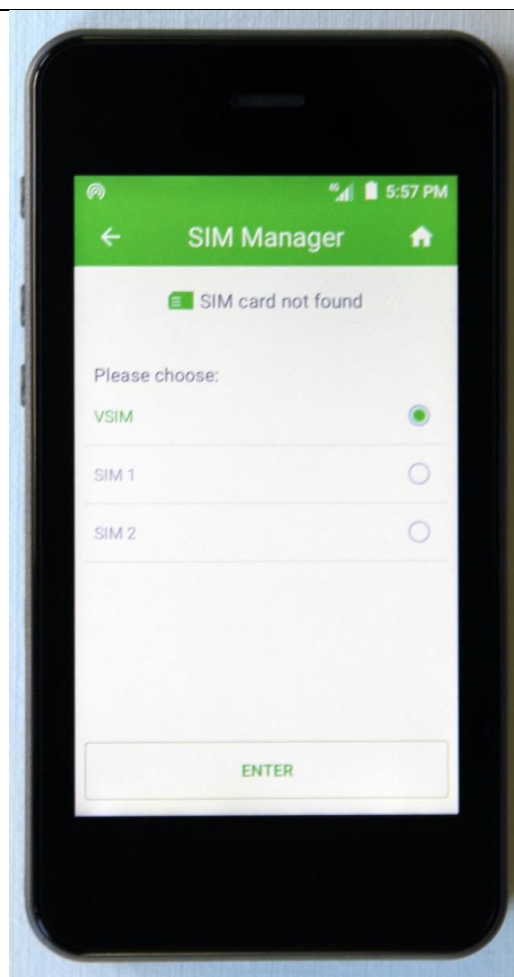
## How it works



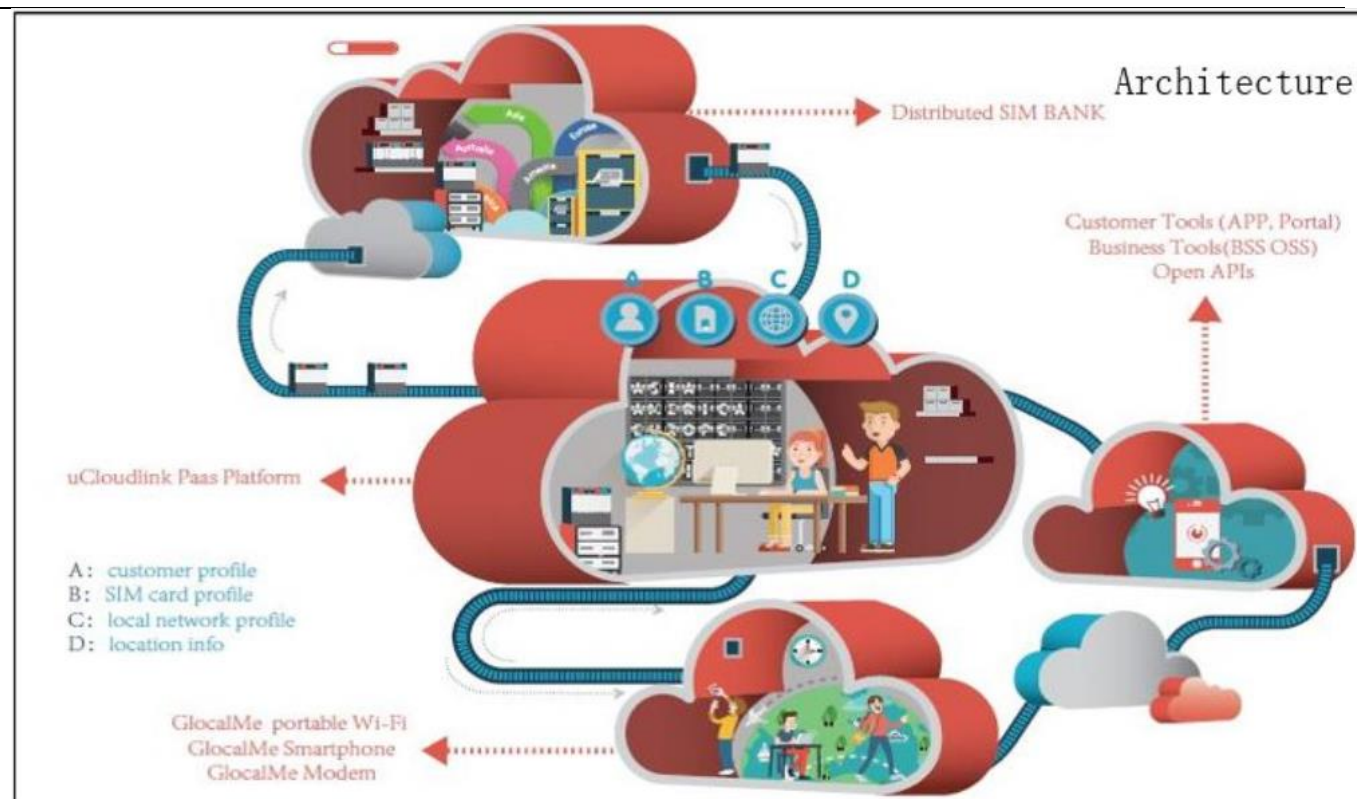
### Cloud SIM - The smart switch between mobile networks in over 100 countries

Through our patented Cloud SIM technology, GlocalMe taps into a world's worth of SIM cards that are located throughout the globe. Our SIM cloud continues to grow leaps and bounds as we tap into new countries. By turning on the G2, your device will find the most optimal network and the corresponding SIM card in the cloud SIM which starts to convert the local mobile connection into Wi-Fi signals, making sure that it's within "domestic" roaming boundaries, and saving you, the user, from international charges.

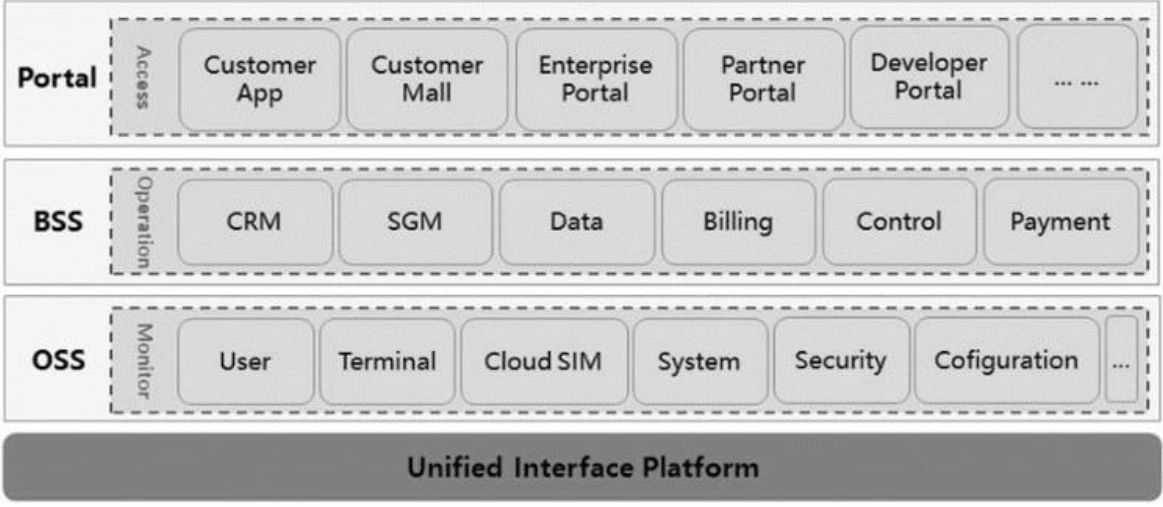
(Source: <https://www.kickstarter.com/projects/787756203/glocalme-kills-sim-card-and-roaming-pains/description>)

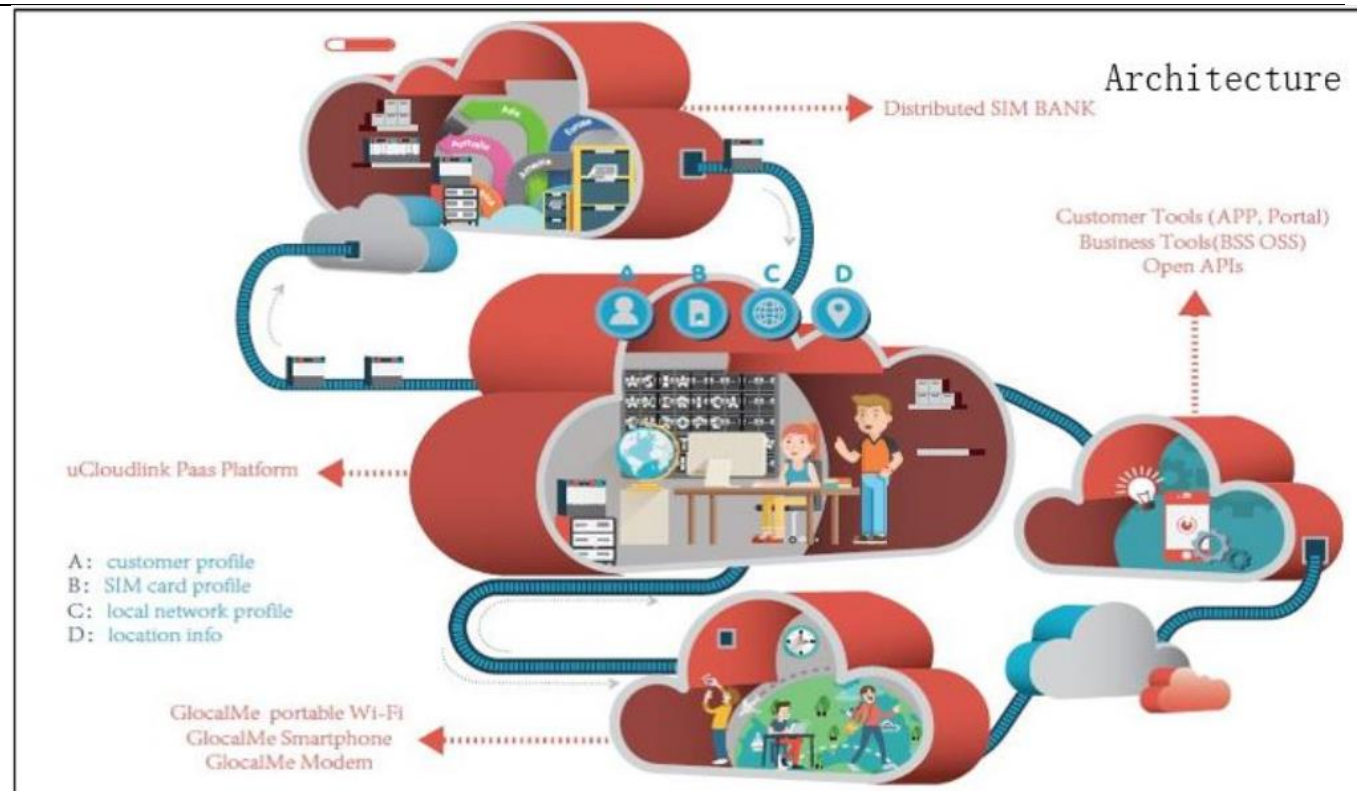


(GlocalMe G3)



(Source: <https://www.ucloudlink.com/html/paas-platform/>)

	<p style="text-align: center;"><b>uCloudlink PaaS Cloud</b></p>  <p>The diagram illustrates the uCloudlink PaaS Cloud architecture. It consists of three main functional layers stacked vertically, all supported by a 'Unified Interface Platform' at the base. The top layer is the 'Portal' layer, categorized under 'Access', which includes components like 'Customer App', 'Customer Mall', 'Enterprise Portal', 'Partner Portal', 'Developer Portal', and an ellipsis. The middle layer is the 'BSS' layer, categorized under 'Operation', which includes 'CRM', 'SGM', 'Data', 'Billing', 'Control', and 'Payment'. The bottom layer is the 'OSS' layer, categorized under 'Monitor', which includes 'User', 'Terminal', 'Cloud SIM', 'System', 'Security', 'Cofiguration', and an ellipsis. Each layer is enclosed in a dashed border, and the entire stack sits on a solid grey bar representing the 'Unified Interface Platform'.</p> <p>(Source: <a href="https://www.ucloudlink.com/html/paas-platform/">https://www.ucloudlink.com/html/paas-platform/</a>)</p>
[1d] wherein said at least one authentication server and said at least one provision server are coupled to a data network;	In uCloudlink's Accused System and Method, said at least one authentication server and said at least one provision server are coupled to a data network.

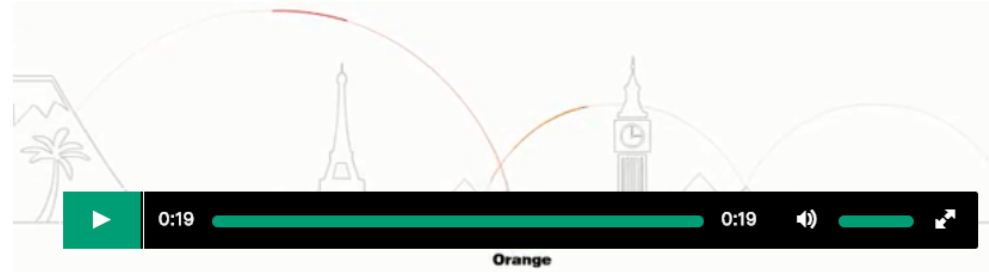


(Source: <https://www.ucloudlink.com/html/paas-platform/>)

[1e] establishing a data communication link to transmit information among said foreign wireless communication device, a service provider in said local communication network, and said remote administration system upon said enabling said initial setting,

uCloudlink's Accused System and Method comprise establishing a data communication link to transmit information among said foreign wireless communication device, a service provider in said local communication network, and said remote administration system upon said enabling said initial setting (e.g., connecting to service).

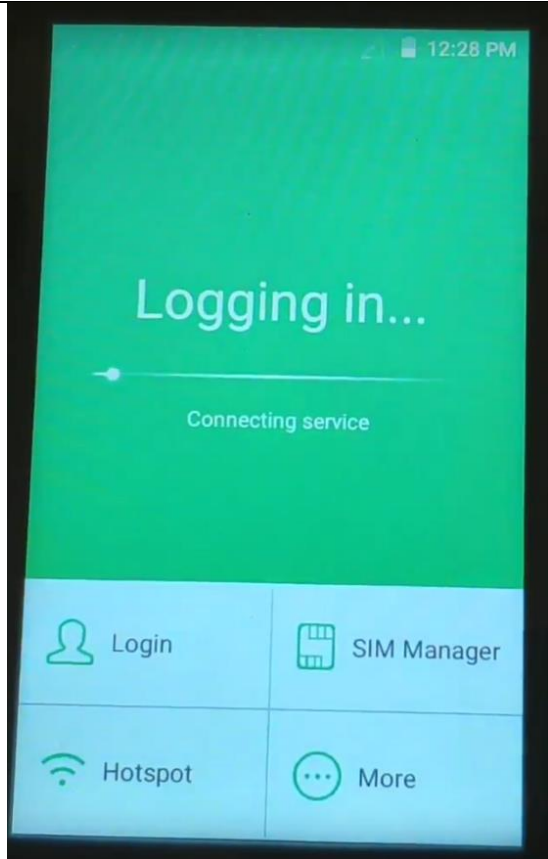
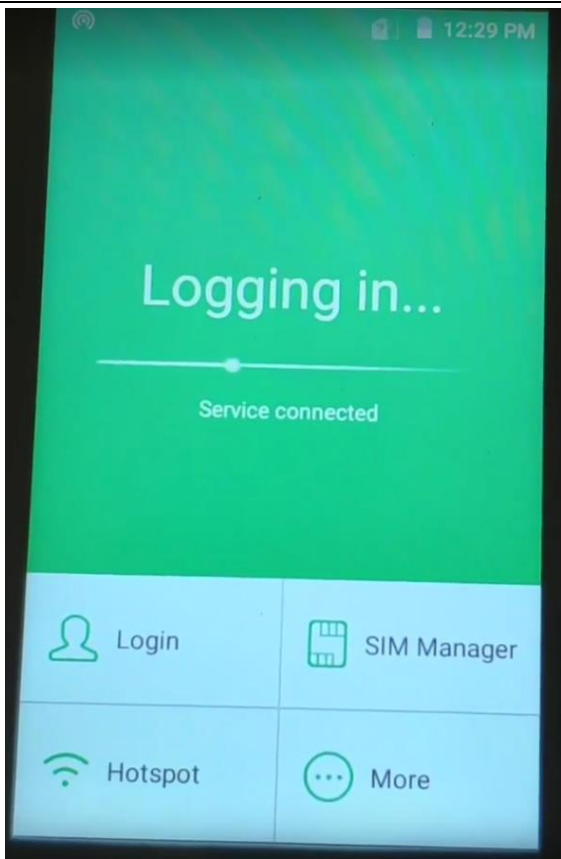
## How it works



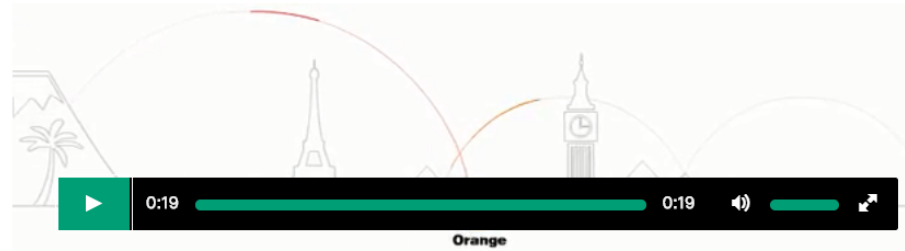
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Through our patented Cloud SIM technology, GlocalMe taps into a world's worth of SIM cards that are located throughout the globe. Our SIM cloud continues to grow leaps and bounds as we tap into new countries. By turning on the G2, your device will find the most optimal network and the corresponding SIM card in the cloud SIM which starts to convert the local mobile connection into Wi-Fi signals, making sure that it's within "domestic" roaming boundaries, and saving you, the user, from international charges.

(Source: <https://www.kickstarter.com/projects/787756203/glocalme-kills-sim-card-and-roaming-pains/description>)

	<div data-bbox="592 191 1136 1045">  </div> <div data-bbox="1205 191 1761 1045">  </div> <p data-bbox="592 1062 789 1101">(Glocalme G3)</p>
<p data-bbox="184 1138 575 1404">[1f] wherein said service provider comprises a plurality of mobile telephone switching centers and base cellular centers, and said service provider further is coupled to said data network and a phone network;</p>	<p data-bbox="592 1138 1911 1235">In uCloudlink's Accused System and Method, said service provider comprises a plurality of mobile telephone switching centers and base cellular centers, and said service provider further is coupled to said data network and a phone network.</p>

## How it works



Cloud SIM – The smart switch between mobile networks in over 100 countries

Through our patented Cloud SIM technology, GlocalMe taps into a world's worth of SIM cards that are located throughout the globe. Our SIM cloud continues to grow leaps and bounds as we tap into new countries. By turning on the G2, your device will find the most optimal network and the corresponding SIM card in the cloud SIM which starts to convert the local mobile connection into Wi-Fi signals, making sure that it's within "domestic" roaming boundaries, and saving you, the user, from international charges.

(Source: <https://www.kickstarter.com/projects/787756203/glocalme-kills-sim-card-and-roaming-pains/description>)




## Superfast 4G Internet connectivity



GlocalMe intelligently switches to the best network provider where you are for the fastest and most stable connection possible.

(Source: <https://www.glocalme.com/?giso=US>)

	<h1 style="text-align: center;">Always Connected to the Best Network</h1> <p style="text-align: center;">The intelligent network selection technology in glocalme inside guarantees that our users are connected to the best local network at all times.</p>  <p>(Source: <a href="https://www.glocalme.com/mall/wifi?type=inside&amp;giso=US">https://www.glocalme.com/mall/wifi?type=inside&amp;giso=US</a>)</p>
<p>[1g] establishing a local authentication information which includes a local number and an International Mobile Subscriber Identity (IMSI) in response to a local authentication request by</p>	<p>uCloudlink's Accused System and Method comprise establishing a local authentication information (e.g., request sent to the server to authenticate the "cloud SIM") which includes a local number and an International Mobile Subscriber Identity (IMSI) in response to a local authentication request by said service provider to said foreign wireless client upon said established data communication link (e.g., authentication request compliant with 2G, 3G, 4G and/or 5G standards).</p>

said service provider to said foreign wireless client upon said established data communication link,

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**GSM 03.20 - version 3.3.2 : January 1991**

### **3. SUBSCRIBER IDENTITY AUTHENTICATION**

#### **3.1 Generality**

Definition and operational requirements of subscriber identity authentication are given in Recommendation GSM 02.09.

The authentication procedure will be also used to perform the cipher key-setting (see Section 4) on dedicated signalling channels. Therefore, it is performed after the subscriber identity (TMSI/IMSI) is known by the network and before the channel is encrypted.

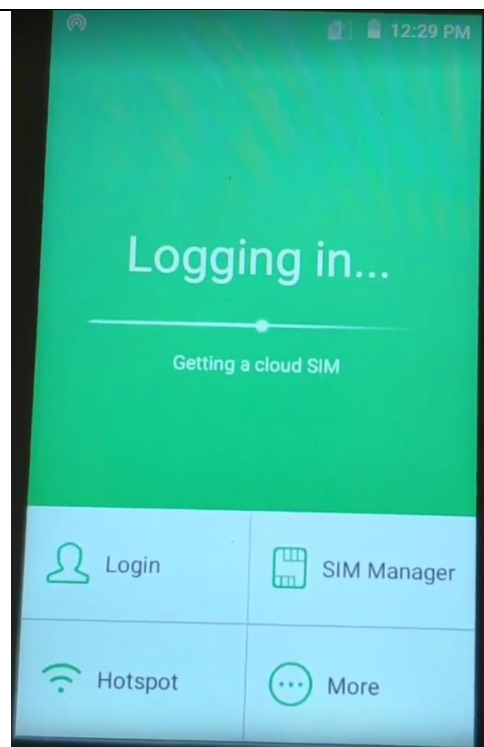
Two network functions are necessary: the authentication procedure itself, and the key management inside the fixed sub-system.

#### **3.2 The authentication procedure**

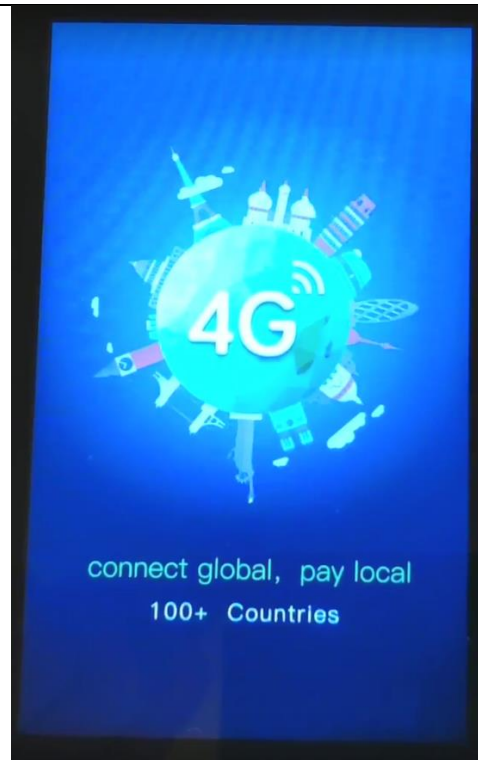
The authentication procedure consists in the following exchange between the fixed sub-system and the MS.

- The fixed sub-system transmits a non-predictable number RAND to the MS.
- The MS computes the signature of RAND, say SRES, using algorithm A3, and some secret information : the Subscriber Authentication Key, denoted Ki in the sequel.
- The MS transmits the signature SRES to the fixed sub-system.
- The fixed sub-system tests SRES for validity.

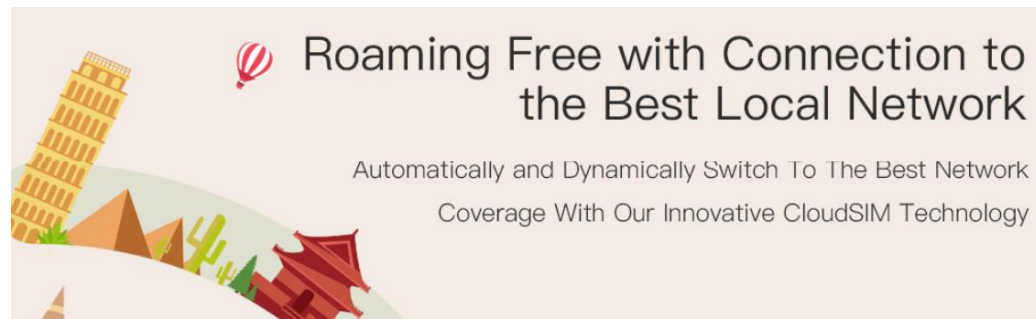
(Source: [https://www.etsi.org/deliver/etsi\\_gts/03/0320/03.03.02\\_60/gsmmts\\_0320sv030302p.pdf](https://www.etsi.org/deliver/etsi_gts/03/0320/03.03.02_60/gsmmts_0320sv030302p.pdf))



(Glocalme G3)

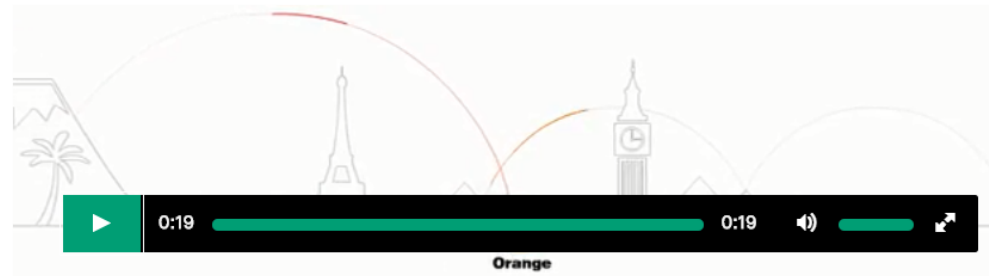


(Glocalme G3)



(Source: <https://www.glocalme.com/mall/wifi?type=g3&giso=US>)

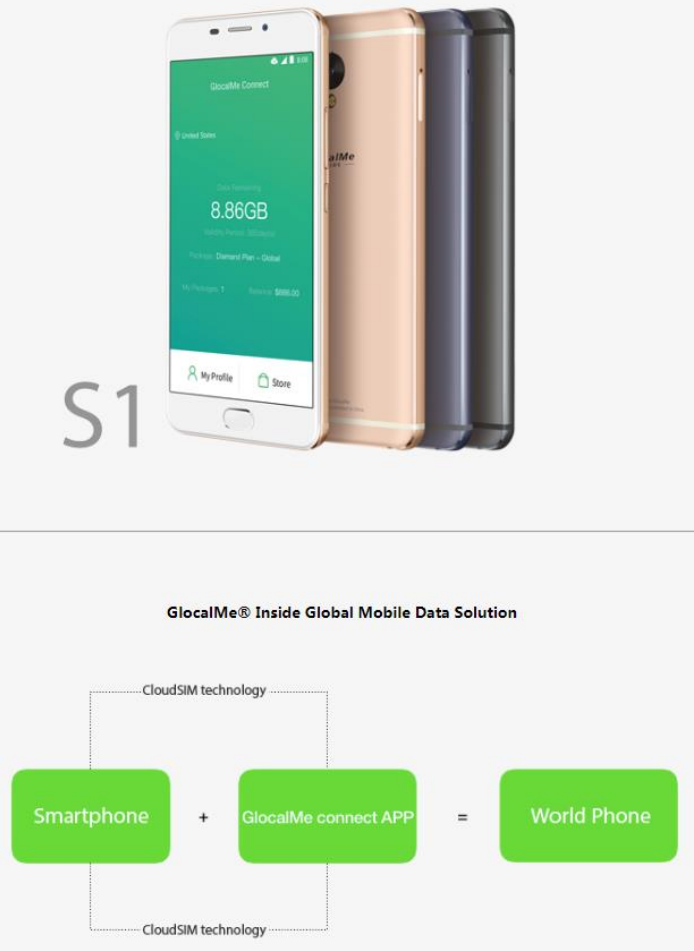
## How it works



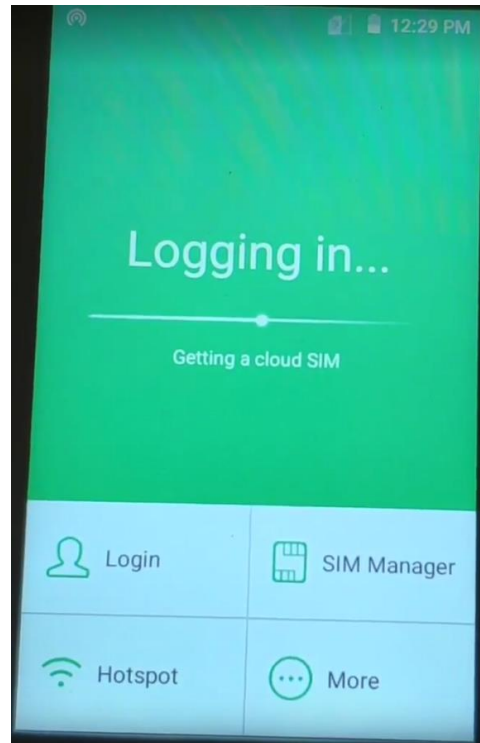
### Cloud SIM - The smart switch between mobile networks in over 100 countries

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(Source: <https://www.kickstarter.com/projects/787756203/glocalme-kills-sim-card-and-roaming-pains/description>)

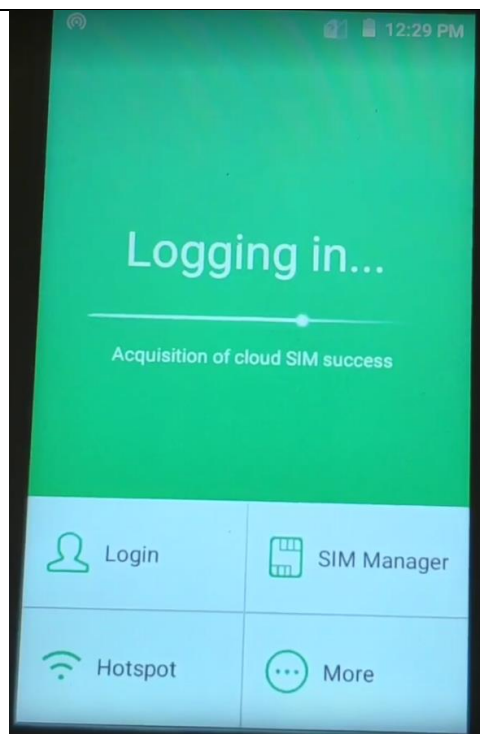
	 <p>(Source: <a href="https://www.ucloudlink.com/html/world-phone/">https://www.ucloudlink.com/html/world-phone/</a>)</p>
<p>[1h] wherein said extension unit wirelessly relays said local authentication information request to said at least one authentication</p>	<p>In uCloudlink's Accused System and Method, said extension unit wirelessly relays said local authentication information request (e.g., request sent to the server to authenticate the "cloud SIM") to said at least one authentication server and obtains a suitable local authentication information from said at least one authentication bank coupled to said at least one said authentication server.</p>

server and obtains a suitable local authentication information from said at least one authentication bank coupled to said at least one said authentication server;



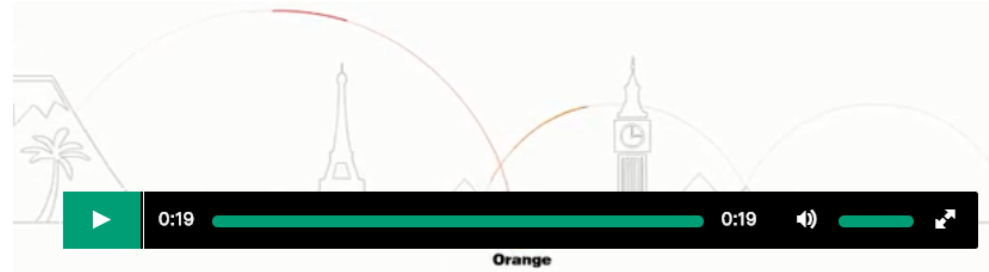
(Glocalme G3)





(Glocalme G3)

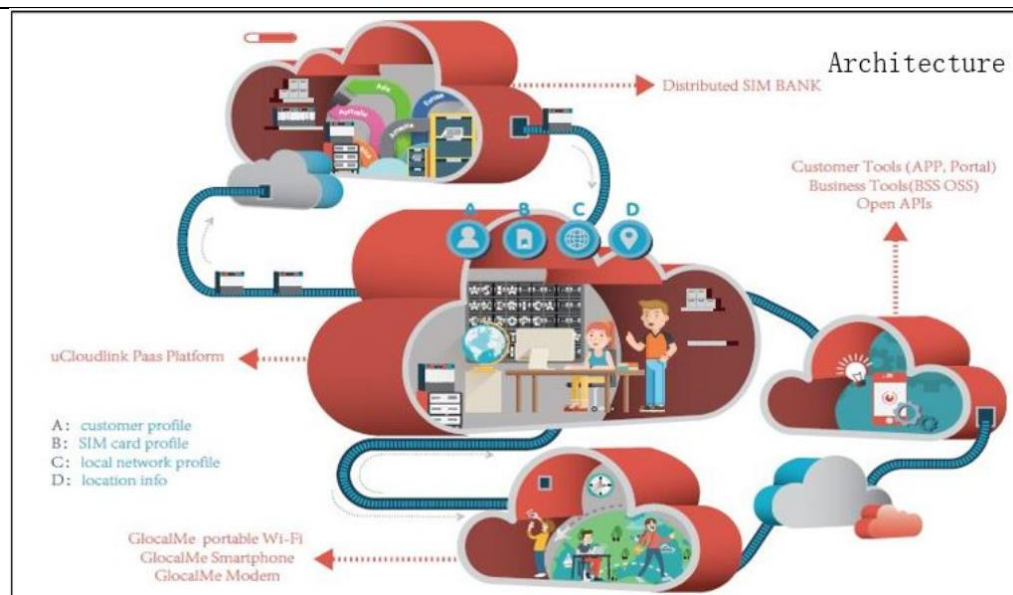
## How it works



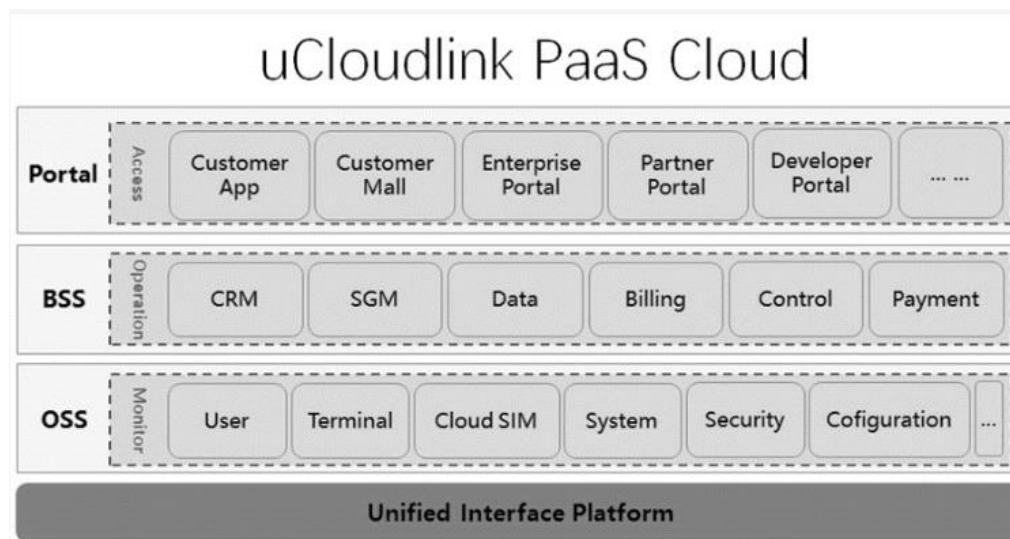
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(Source: <https://www.kickstarter.com/projects/787756203/glocalme-kills-sim-card-and-roaming-pains/description>)



(Source: <https://www.ucloudlink.com/html/paas-platform/>)



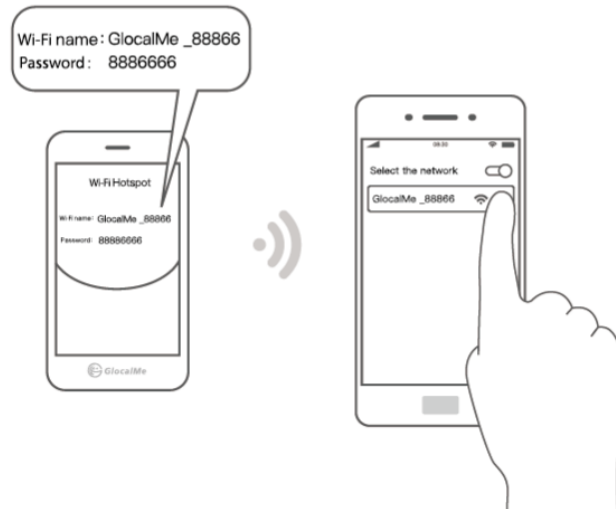
(Source: <https://www.ucloudlink.com/html/paas-platform/>)




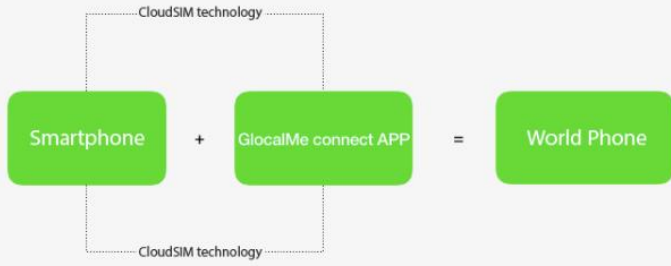
(Source: <https://www.glocalme.com/mall/wifi?type=g3&giso=US>)

## 5 Connect GlocalMe Wi-Fi

- Press **Hotspot** on G3 and find the Wi-Fi name and password
- Connect your mobile device in Wi-Fi setting



(Source: <https://www.glocalme.com/service/instruction?qiso=US>)

	 <p>S1</p> <p><b>GlocalMe® Inside Global Mobile Data Solution</b></p>  <p>(Source: <a href="https://www.ucloudlink.com/html/world-phone/">https://www.ucloudlink.com/html/world-phone/</a>)</p>
<p>[1i] establishing a virtual local wireless service provided by said service provider to said foreign wireless client according to said obtained suitable local authentication</p>	<p>uCloudlink's Accused System and Method comprise establishing a virtual local wireless service provided by said service provider to said foreign wireless client (e.g., registration with local network) according to said obtained suitable local authentication information (e.g., authentication response compliant with 2G, 3G, 4G and/or 5G standards), wherein said virtual local wireless service is wirelessly requested by said extension unit through said remote administration system (e.g.,</p>

information, wherein said virtual local wireless service is wirelessly requested by said extension unit through said remote administration system; and

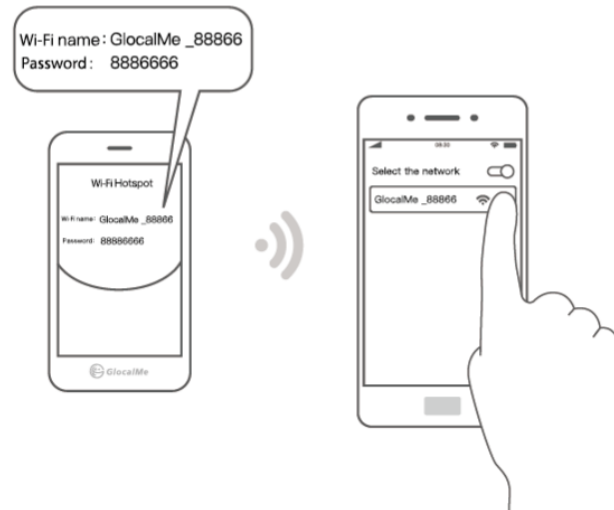
uCloudlink's "PaaS platform).



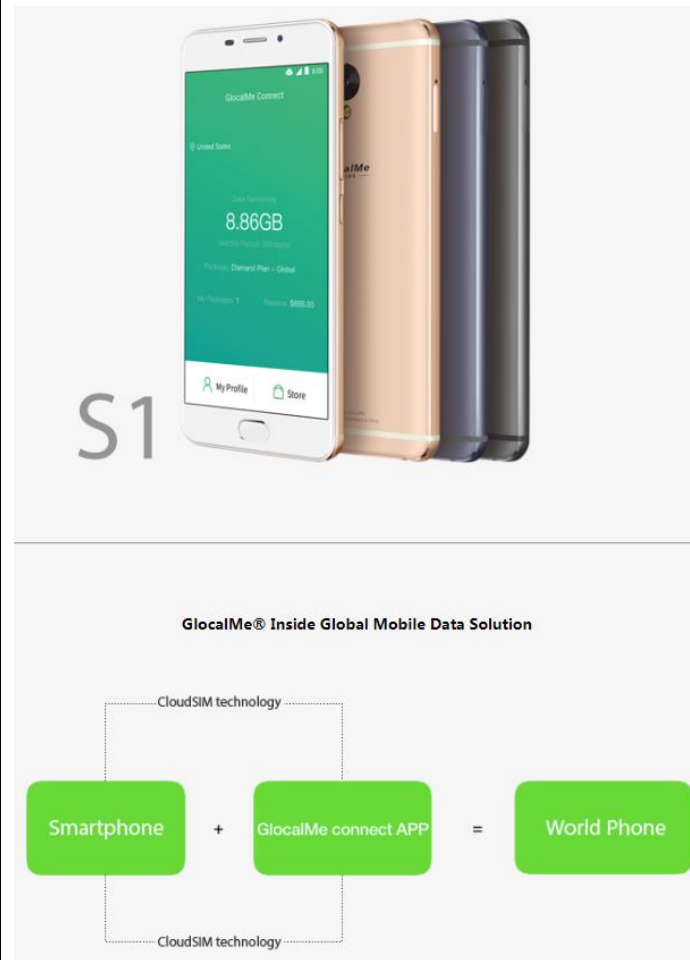
(Source: <https://www.glocalme.com/mall/wifi?type=g3&giso=US>)

## 5 Connect GlocalMe Wi-Fi

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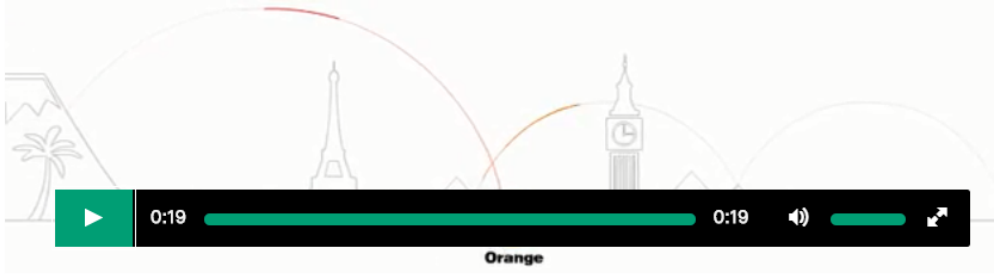


(Source: <https://www.glocalme.com/service/instruction?qiso=US>)

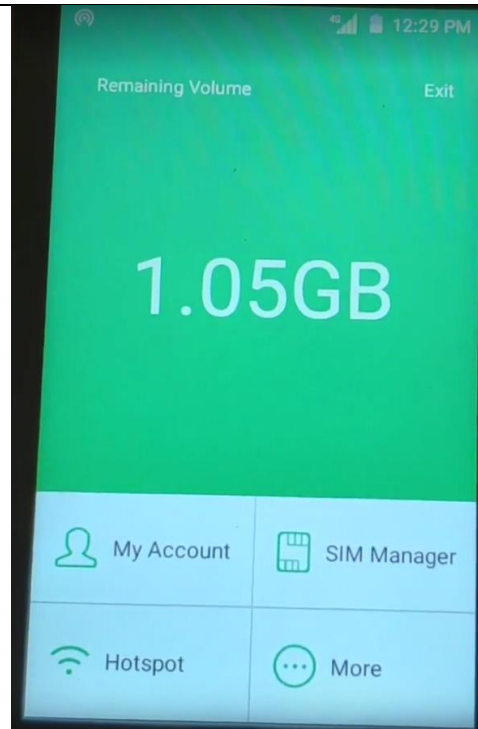


(Source: <https://www.ucloudlink.com/html/world-phone/>)

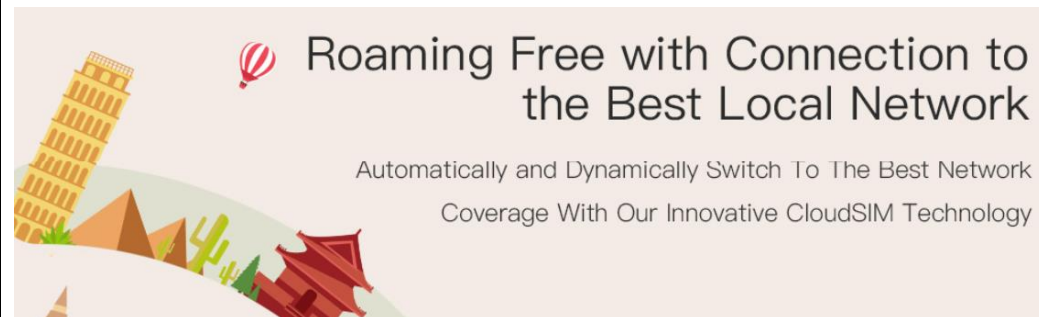


	<h2>How it works</h2>  <p>Cloud SIM - The smart switch between mobile networks in over 100 countries</p> <p>Through our patented Cloud SIM technology, GlocalMe taps into a world's worth of SIM cards that are located throughout the globe. Our SIM cloud continues to grow leaps and bounds as we tap into new countries. By turning on the G2, your device will find the most optimal network and the corresponding SIM card in the cloud SIM which starts to convert the local mobile connection into Wi-Fi signals, making sure that it's within "domestic" roaming boundaries, and saving you, the user, from international charges.</p> <p>(Source: <a href="https://www.kickstarter.com/projects/787756203/glocalme-kills-sim-card-and-roaming-pains/description">https://www.kickstarter.com/projects/787756203/glocalme-kills-sim-card-and-roaming-pains/description</a>)</p>
<p>[1j] providing a communication service to said foreign wireless communication device according to said established virtual wireless service, wherein said foreign wireless client becomes said virtual local wireless communication device acting as a local</p>	<p>uCloudlink's Accused System and Method comprise providing a communication service (e.g., data and/or voice services) to said foreign wireless communication device according to said established virtual wireless service, wherein said foreign wireless client becomes said virtual local wireless communication device acting as a local cellular phone (e.g., GlocalMe® Inside based on CloudSIM technology) with an assigned local phone number over a voice link via said phone network and/or said data link via said data network through said at least one communication server.</p>

cellular phone with an assigned local phone number over a voice link via said phone network and/or said data link via said data network through said at least one communication server, and



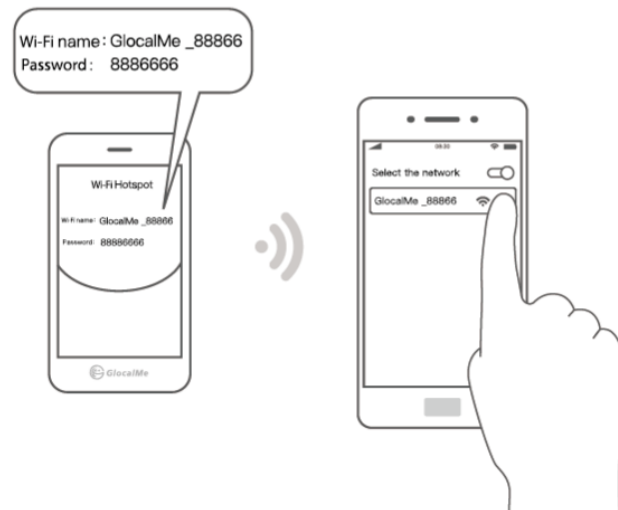
(Glocalme G3)



(Source: <https://www.glocalme.com/mall/wifi?type=g3&qiso=US>)

## 5 Connect GlocalMe Wi-Fi

- Press **Hotspot** on G3 and find the Wi-Fi name and password
- Connect your mobile device in Wi-Fi setting

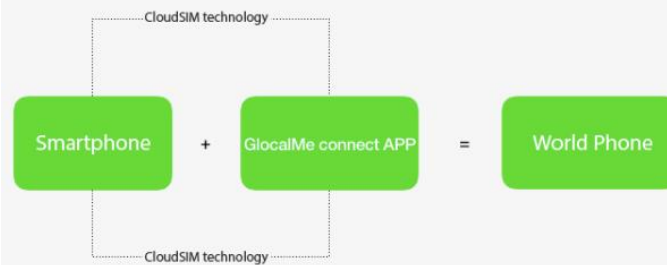


(Source: <https://www.glocalme.com/service/instruction?qiso=US>)

S1

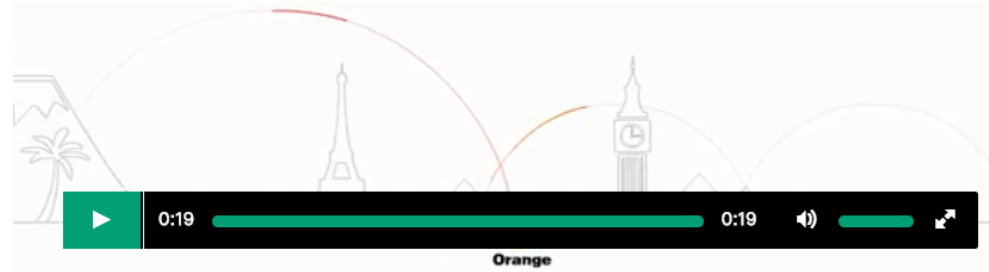


**GlocalMe® Inside Global Mobile Data Solution**



(Source: <https://www.ucloudlink.com/html/world-phone/>)

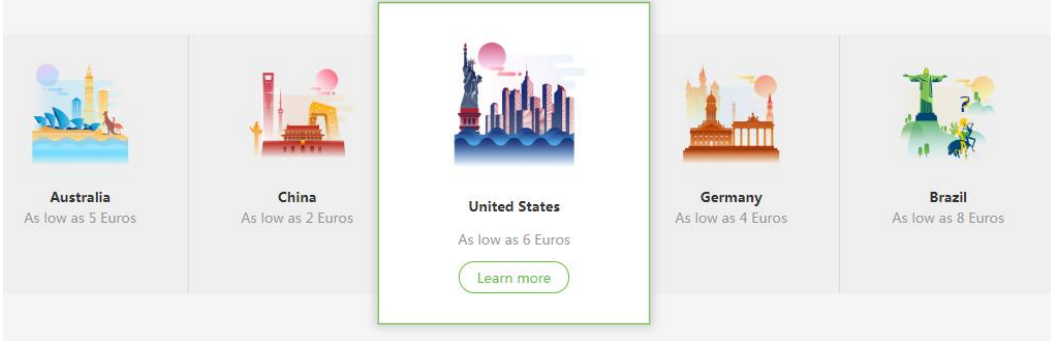
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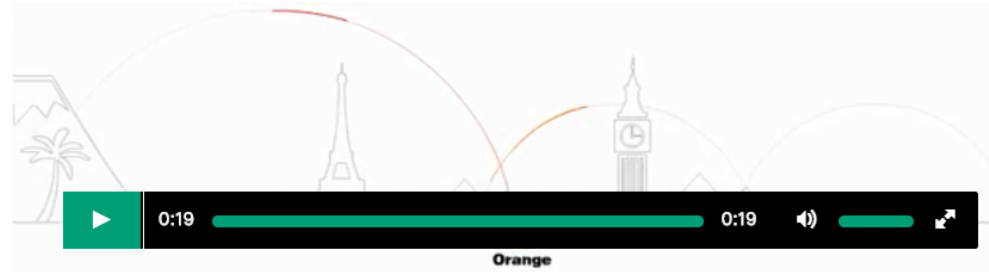
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(Source: <https://www.kickstarter.com/projects/787756203/glocalme-kills-sim-card-and-roaming-pains/description>)

	<p style="text-align: center;">Global Data Package</p> <p style="text-align: center;">——— FIND THE BEST DATA PACKAGE FOR YOUR NEXT JOURNEY ———</p>  <p>(Source: <a href="https://www.glocalme.com/">https://www.glocalme.com/</a>)</p>
<p>[1k] said at least one communication server is coupled to said data network, said phone network and said at least one routing database having lists of preferred routing details for connections between different geographic locations, and said assigned local phone number is based on said obtained suitable local authentication information.</p>	<p>In uCloudlink's Accused System and Method, said at least one communication server is coupled to said data network, said phone network and said at least one routing database having lists of preferred routing details for connections between different geographic locations, and said assigned local phone number is based on said obtained suitable local authentication information.</p>

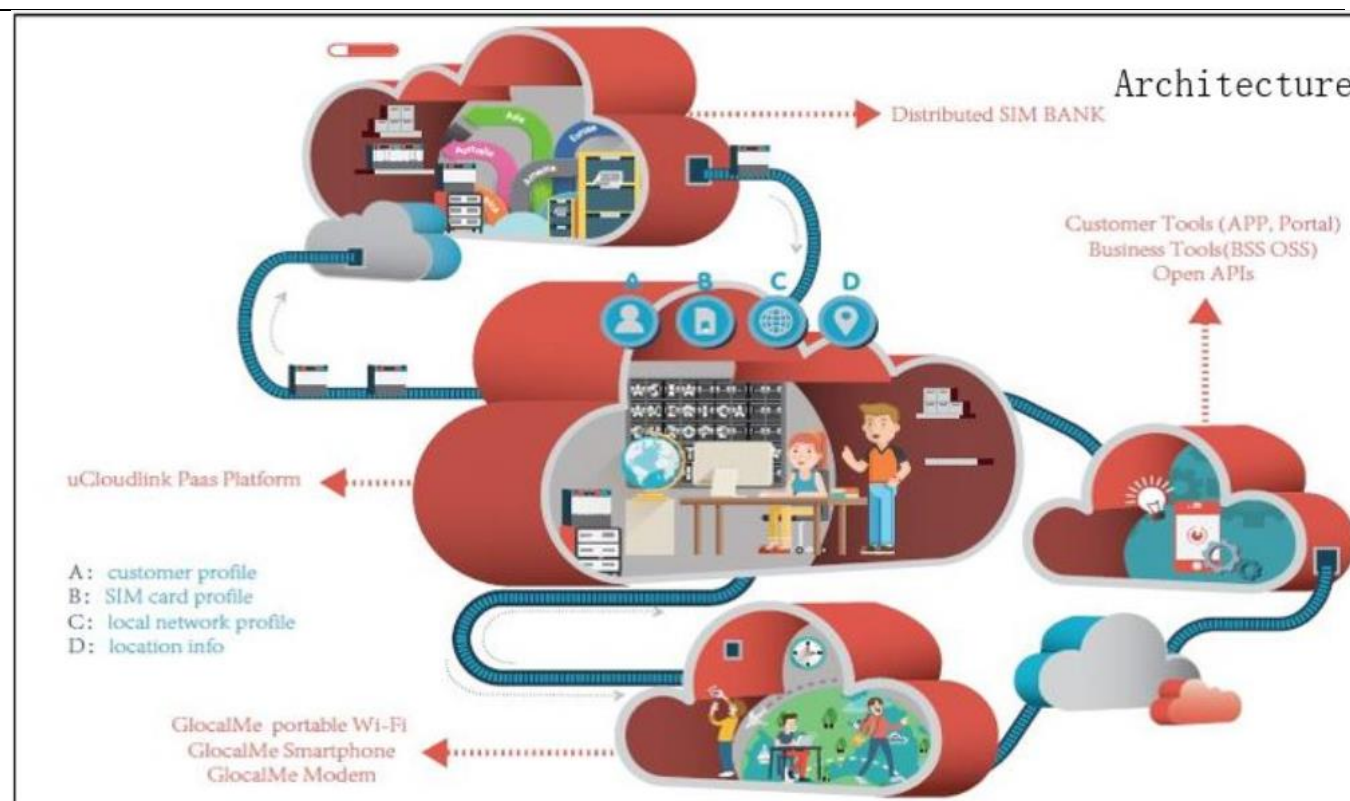
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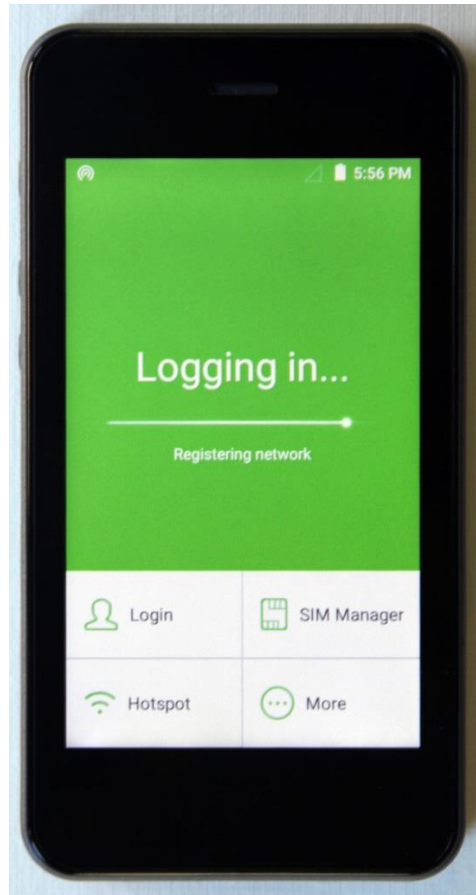
(Source: <https://www.ucloudlink.com/html/paas-platform/>)



	<h1 data-bbox="638 228 1822 298">Always Connected to the Best Network</h1> <p data-bbox="693 315 1768 375">The intelligent network selection technology in glocalme inside guarantees that our users are connected to the best local network at all times.</p>  <p data-bbox="596 1068 1470 1101">(Source: <a href="https://www.glocalme.com/mall/wifi?type=inside&amp;giso=US">https://www.glocalme.com/mall/wifi?type=inside&amp;giso=US</a>)</p>
<p data-bbox="323 1182 436 1214"><b>Claim 2</b></p>	<p data-bbox="968 1182 1535 1214"><b>uCloudlink Accused System and Method</b></p>
<p data-bbox="184 1252 569 1382">[2pre] The method of claim 1, wherein the enabling an initial setting step further comprising:</p>	<p data-bbox="596 1252 856 1284">See [1pre] and [1a].</p>

[2a] requesting a subscription to said remote administration system from said foreign wireless client, said extension unit, or a combination of said foreign wireless client and said extension unit;

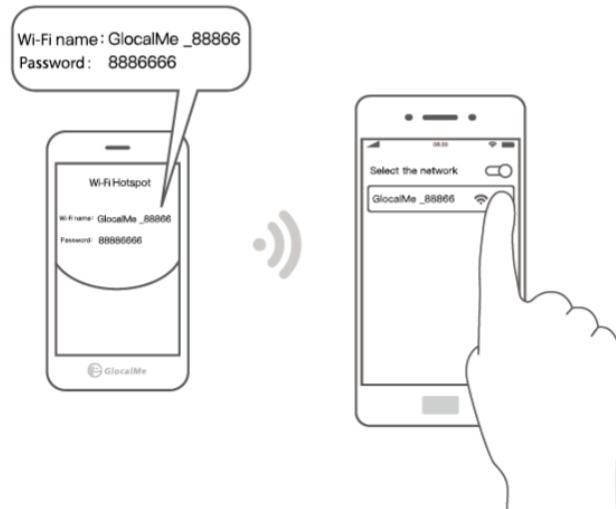
uCloudlink's Accused System and Method comprise requesting a subscription to said remote administration system (e.g., uCloudlink's "PaaS" platform) from said foreign wireless client, said extension unit, or a combination of said foreign wireless client and said extension unit.



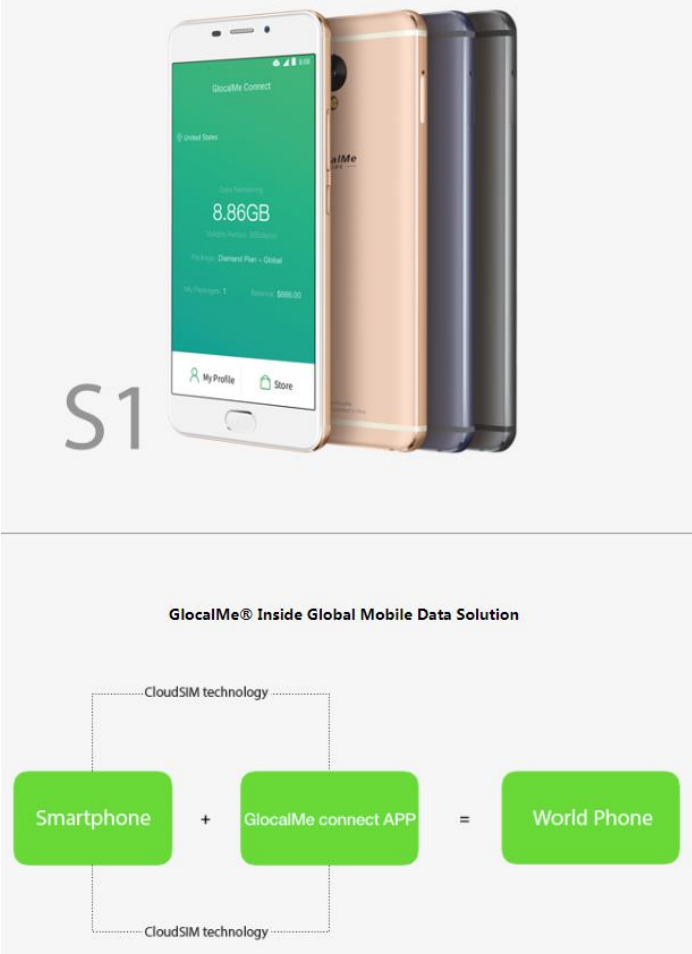
(GlocalMe G3)

## 5 Connect GlocalMe Wi-Fi

- Press **Hotspot** on G3 and find the Wi-Fi name and password
- Connect your mobile device in Wi-Fi setting



(Source: <https://www.glocalme.com/service/instruction?qiso=US>)

	 <p>The advertisement for the GlocalMe S1 features a smartphone with a green screen displaying 'GlocalMe Connect', 'United States', 'Data Remaining: 8.86GB', 'Package: Diamond Plan - Global', 'My Packages: 1', and 'Recharge: \$999.00'. Below the phone are icons for 'My Profile' and 'Store'. To the left of the phone is the text 'S1'. Below the phone image is a diagram titled 'GlocalMe® Inside Global Mobile Data Solution'. The diagram shows a 'Smartphone' box plus a 'GlocalMe connect APP' box equals a 'World Phone' box. Dashed lines labeled 'CloudSIM technology' connect the 'Smartphone' and 'GlocalMe connect APP' boxes to each other and to the 'World Phone' box.</p> <p>(Source: <a href="https://www.ucloudlink.com/html/world-phone/">https://www.ucloudlink.com/html/world-phone/</a>)</p>
[2b] establishing account details of said foreign wireless client and/or said extension unit, wherein said	uCloudlink's Accused System and Method comprise establishing account details of said foreign wireless client and/or said extension unit (e.g., GlocalMe account registration), wherein said account details are then stored in said at least one subscriber database by said at least one authentication server.

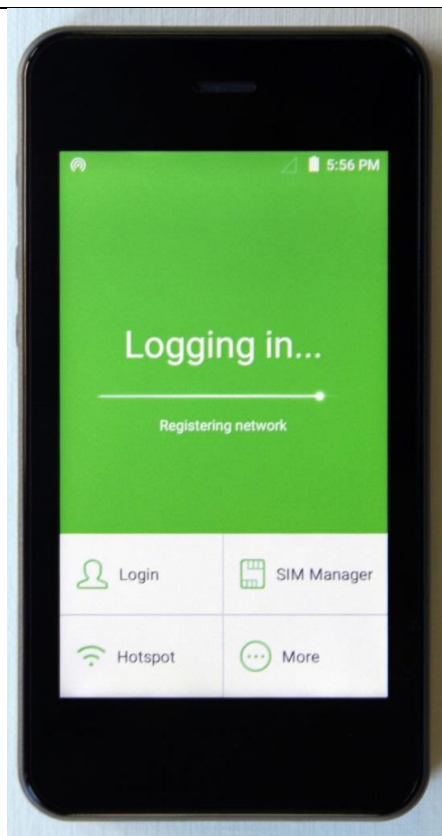
account details are then stored in said at least one subscriber database by said at least one authentication server;

## 2 Register a GlocalMe Account (in APP)

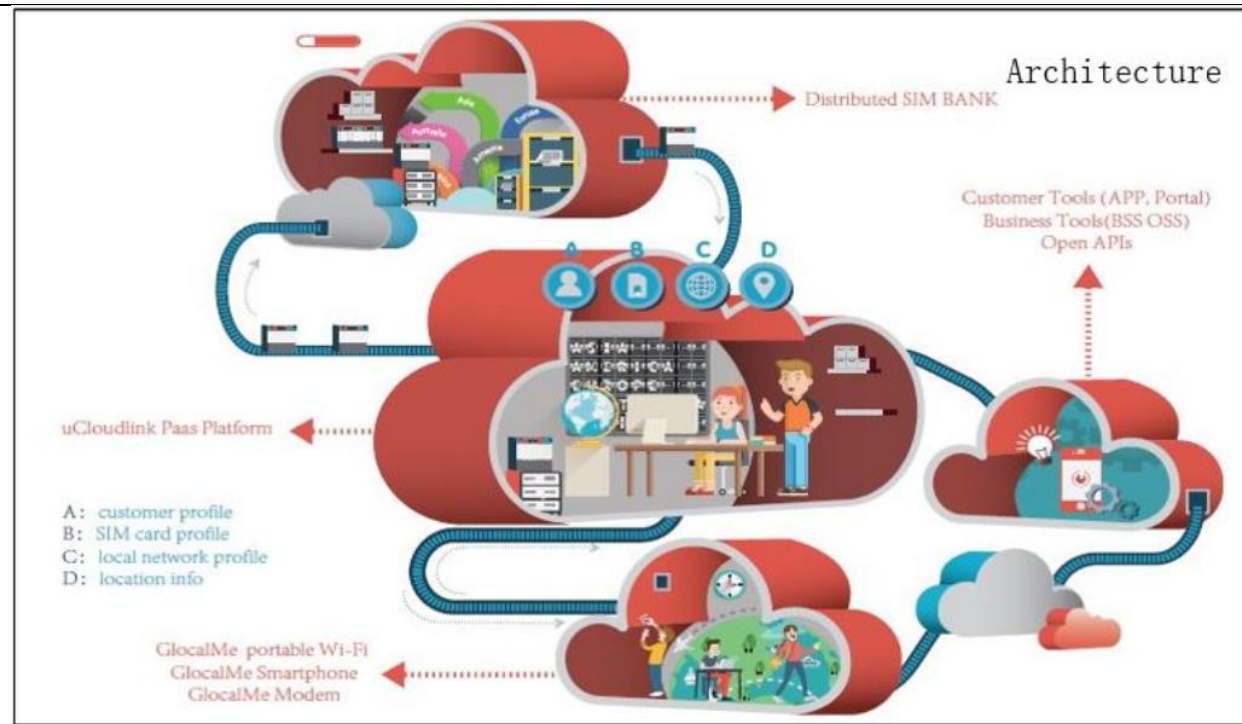
- Press **Login** → **Register**
- Follow the step to register an account  
(You can register by email or mobile number)



(Source: <https://www.glocalme.com/service/instruction?qiso=US>)




(GlocalMe G3)



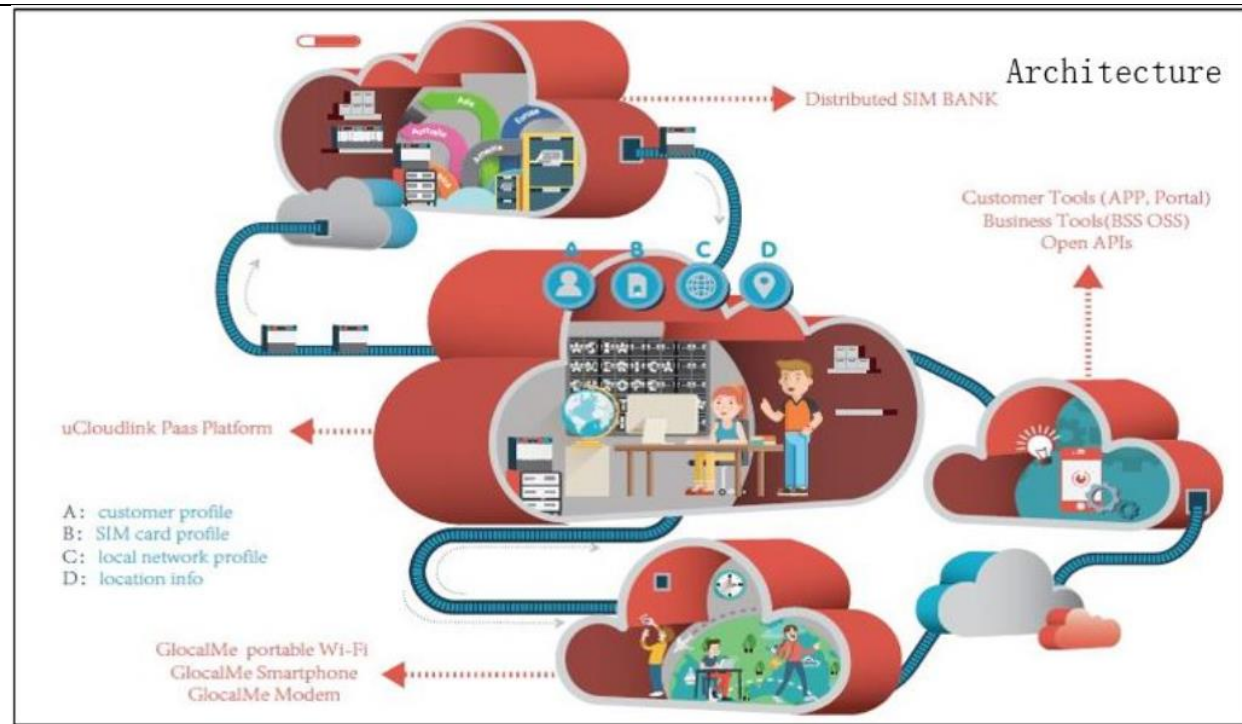
(Source: <https://www.ucloudlink.com/html/paas-platform/>)

[2c] downloading and installing a remote authentication module from said remote administration system to said foreign wireless client and/or said extension unit;

uCloudlink's Accused System and Method comprise downloading and installing a remote authentication module from said remote administration system to said foreign wireless client and/or said extension unit (e.g., downloading and installing GlocalMe APP from uCloudlink PaaS Platform).

	<p>1 Download GlocalMe APP</p> <p>● Scan the QR-Code for downloading</p>  <p>(Source: <a href="https://www.glocalme.com/service/instruction?qiso=US">https://www.glocalme.com/service/instruction?qiso=US</a>)</p>
<p>[2d] transmitting credential parameters and location parameters of said foreign wireless client and/or said extension unit to said at least one provision server, wherein said credential parameters and said location parameters are then stored in said at least one provision server; and</p>	<p>uCloudlink's Accused System and Method comprise transmitting credential parameters and location parameters of said foreign wireless client and/or said extension unit to said at least one provision server, wherein said credential parameters and said location parameters are then stored in said at least one provision server.</p>





(Source: <https://www.ucloudlink.com/html/paas-platform/>)

< Register by E-mail

Register by E-mail

Password

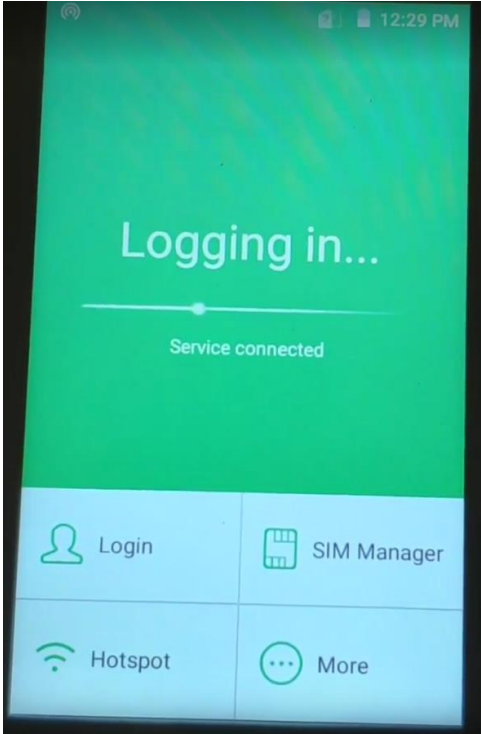
Place of residence United States of America >

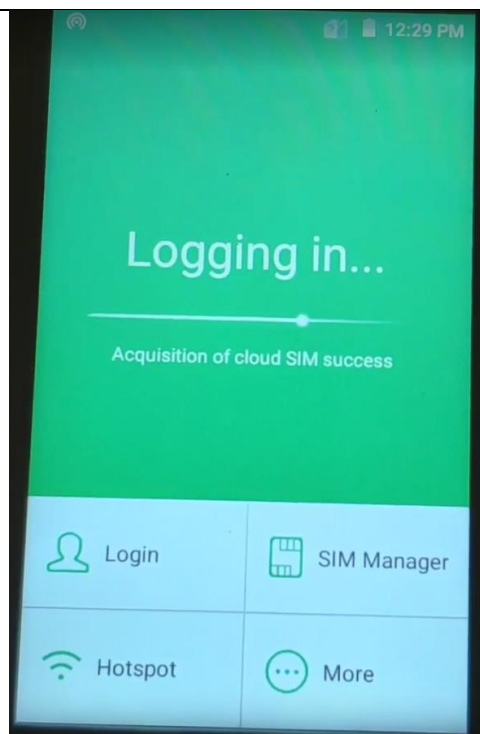
☐ I agree to the [User Agreement](#) and [Privacy Policy](#)

Register

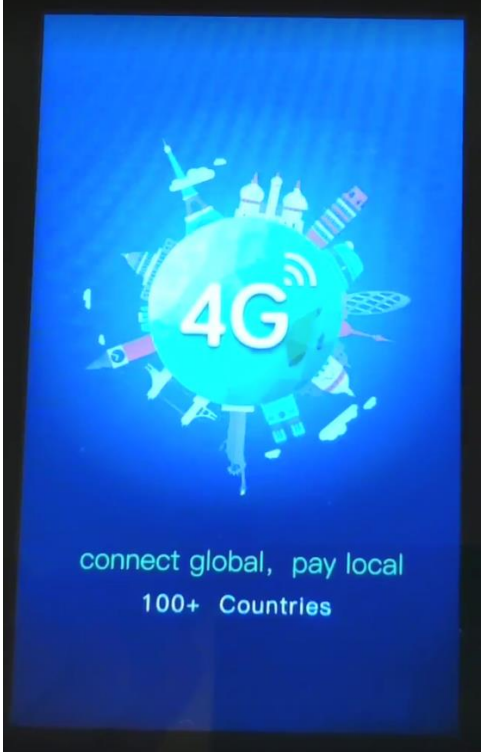
(Glocalme App)

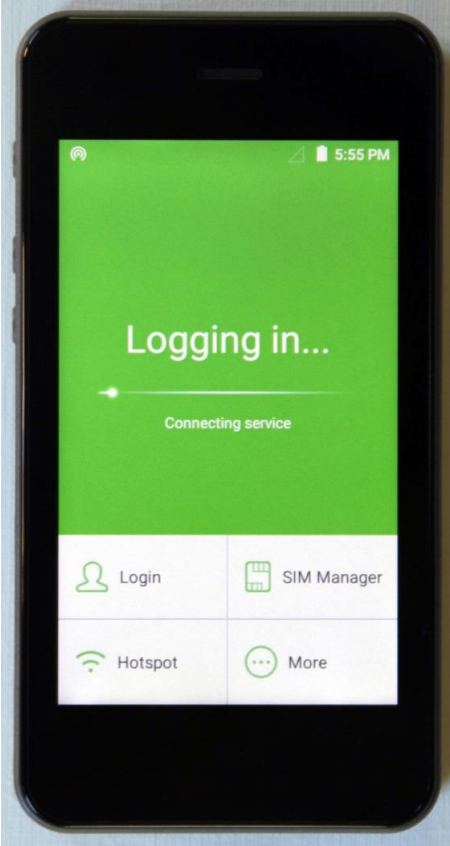


	(Glocalme G3)
<p>[2e] sending an acknowledgement to said foreign wireless client and/or said extension unit upon said credential parameters and said location parameters are stored in said at least one provision server.</p>	<p>uCloudlink's Accused System and Method comprise sending an acknowledgement to said foreign wireless client and/or said extension unit upon said credential parameters and said location parameters are stored in said at least one provision server.</p>  <p>(GlocalMe G3)</p>

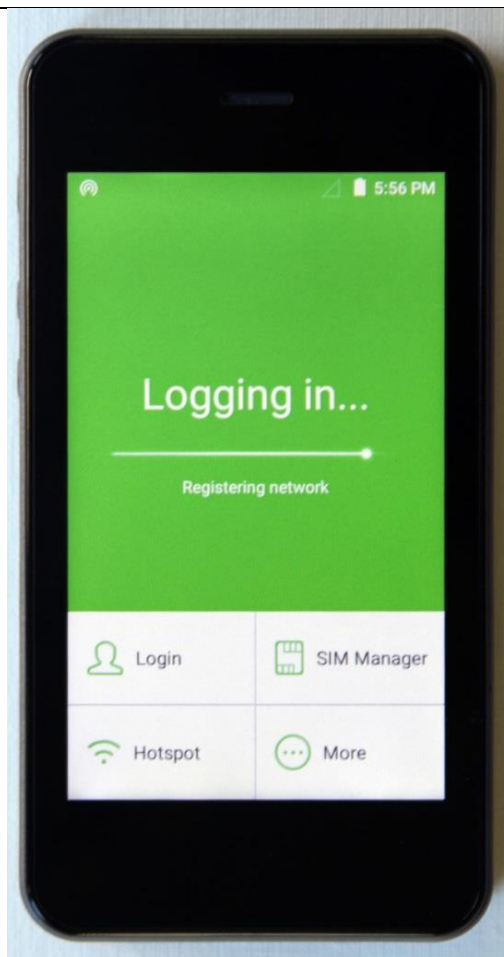


(Glocalme G3)

	 <p>(Glocalme G3)</p>
Claim 3	uCloudlink Accused System and Method
[3pre] The method of claim 1, wherein the establishing a data link step further comprising:	See [1pre].
[3a] sending a request for said data link from said foreign wireless client and/or said extension unit to said	uCloudlink's Accused System and Method comprise sending a request (e.g., connecting service) for said data link from said foreign wireless client and/or said extension unit to said service provider over a command link.

<p>service provider over a command link;</p>	 <p>(GlocalMe G3)</p>
<p>[3b] requesting an authentication information stored in said foreign wireless client and/or said extension unit from said service provider to said foreign wireless client and/or said extension unit over said</p>	<p>uCloudlink's Accused System and Method comprise requesting an authentication information stored in said foreign wireless client and/or said extension unit from said service provider to said foreign wireless client and/or said extension unit over said command link (e.g., authentication request compliant with 2G, 3G, 4G and/or 5G standards).</p>

command link;

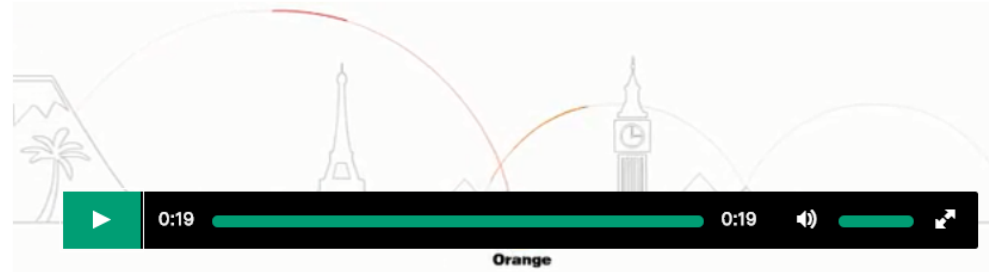


(GlocalMe G3)

	<p><b>Page 10</b>  <b>GSM 03.20 - version 3.3.2 : January 1991</b></p> <p><b>3. SUBSCRIBER IDENTITY AUTHENTICATION</b></p> <p><b>3.1 Generality</b></p> <p>Definition and operational requirements of subscriber identity authentication are given in Recommendation GSM 02.09.</p> <p>The authentication procedure will be also used to perform the cipher key-setting (see Section 4) on dedicated signalling channels. Therefore, it is performed after the subscriber identity (TMSI/IMSI) is known by the network and before the channel is encrypted.</p> <p>Two network functions are necessary: the authentication procedure itself, and the key management inside the fixed sub-system.</p> <p><b>3.2 The authentication procedure</b></p> <p>The authentication procedure consists in the following exchange between the fixed sub-system and the MS.</p> <ul style="list-style-type: none"> <li>- The fixed sub-system transmits a non-predictable number RAND to the MS.</li> <li>- The MS computes the signature of RAND, say SRES, using algorithm A3, and some secret information : the Subscriber Authentication Key, denoted Ki in the sequel.</li> <li>- The MS transmits the signature SRES to the fixed sub-system.</li> <li>- The fixed sub-system tests SRES for validity.</li> </ul> <p>(Source: <a href="https://www.etsi.org/deliver/etsi_gts/03/0320/03.03.02_60/gsmmts_0320sv030302p.pdf">https://www.etsi.org/deliver/etsi_gts/03/0320/03.03.02_60/gsmmts_0320sv030302p.pdf</a>)</p>
<p>[3c] locating said authentication information stored in, said foreign wireless client and/or said extension unit;</p>	<p>uCloudlink's Accused System and Method comprise locating said authentication information stored in, said foreign wireless client and/or said extension unit.</p>




## How it works



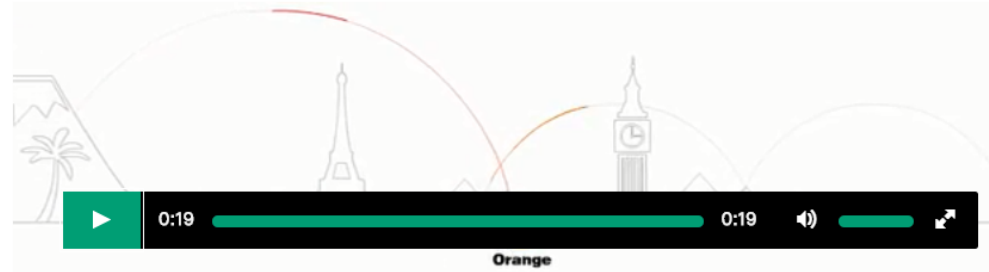
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(Source: <https://www.kickstarter.com/projects/787756203/glocalme-kills-sim-card-and-roaming-pains/description>)

	 <p>(Glocalme G3)</p>
<p>[3d] sending the located authentication information to said service provider over said command link;</p>	<p>uCloudlink's Accused System and Method comprise sending the located authentication information to said service provider over said command link (e.g., registration with local network; authentication response compliant with 2G, 3G, 4G and/or 5G standards).</p>

## How it works



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Page 10  
GSM 03.20 - version 3.3.2 : January 1991

### 3. SUBSCRIBER IDENTITY AUTHENTICATION

#### 3.1 Generality

Definition and operational requirements of subscriber identity authentication are given in Recommendation GSM 02.09.

The authentication procedure will be also used to perform the cipher key-setting (see Section 4) on dedicated signalling channels. Therefore, it is performed after the subscriber identity (TMSI/IMSI) is known by the network and before the channel is encrypted.

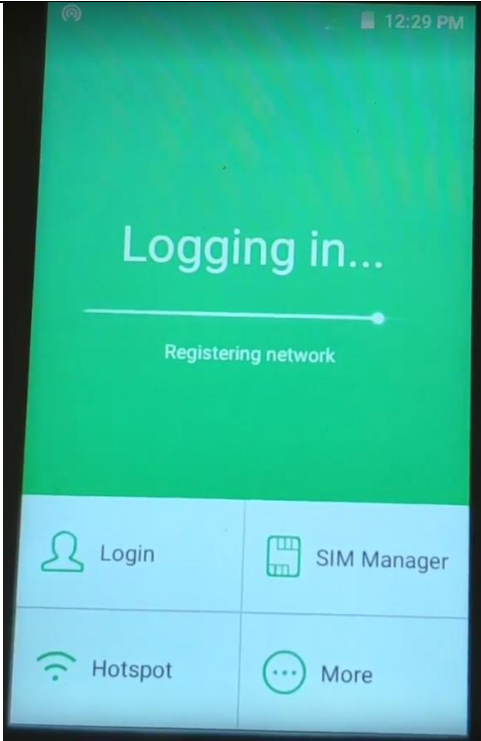
Two network functions are necessary: the authentication procedure itself, and the key management inside the fixed sub-system.

#### 3.2 The authentication procedure

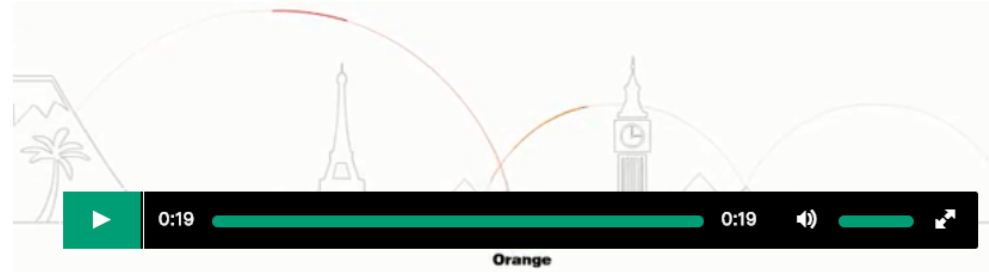
The authentication procedure consists in the following exchange between the fixed sub-system and the MS.

- The fixed sub-system transmits a non-predictable number RAND to the MS.
- The MS computes the signature of RAND, say SRES, using algorithm A3, and some secret information : the Subscriber Authentication Key, denoted Ki in the sequel.
- The MS transmits the signature SRES to the fixed sub-system.
- The fixed sub-system tests SRES for validity.

(Source: [https://www.etsi.org/deliver/etsi\\_gts/03/0320/03.03.02\\_60/gsmmts\\_0320sv030302p.pdf](https://www.etsi.org/deliver/etsi_gts/03/0320/03.03.02_60/gsmmts_0320sv030302p.pdf))

	 <p>(Glocalme G3)</p>
<p>[3e] receiving the located authentication information from said foreign wireless client and/or said extension unit at said service provider;</p>	<p>uCloudlink's Accused System and Method comprise receiving the located authentication information from said foreign wireless client and/or said extension unit at said service provider (e.g., registration with local network; authentication response compliant with 2G, 3G, 4G and/or 5G standards).</p>

## How it works



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(Source: <https://www.kickstarter.com/projects/787756203/glocalme-kills-sim-card-and-roaming-pains/description>)

Page 10  
GSM 03.20 - version 3.3.2 : January 1991

### 3. SUBSCRIBER IDENTITY AUTHENTICATION

#### 3.1 Generality

Definition and operational requirements of subscriber identity authentication are given in Recommendation GSM 02.09.

The authentication procedure will be also used to perform the cipher key-setting (see Section 4) on dedicated signalling channels. Therefore, it is performed after the subscriber identity (TMSI/IMSI) is known by the network and before the channel is encrypted.

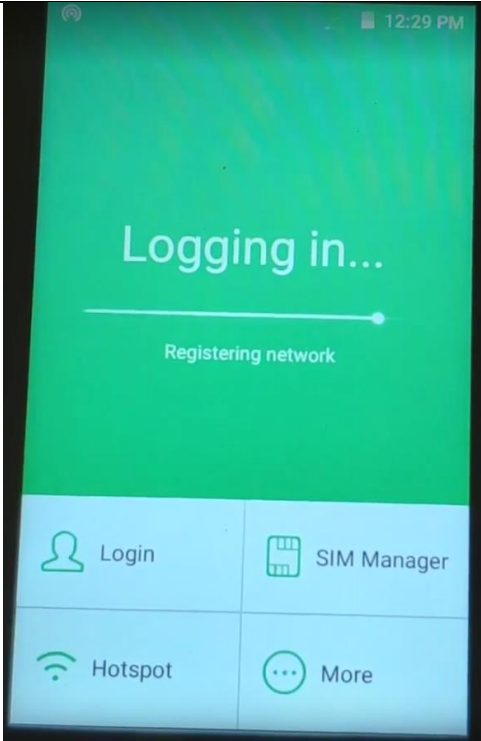
Two network functions are necessary: the authentication procedure itself, and the key management inside the fixed sub-system.

#### 3.2 The authentication procedure

The authentication procedure consists in the following exchange between the fixed sub-system and the MS.

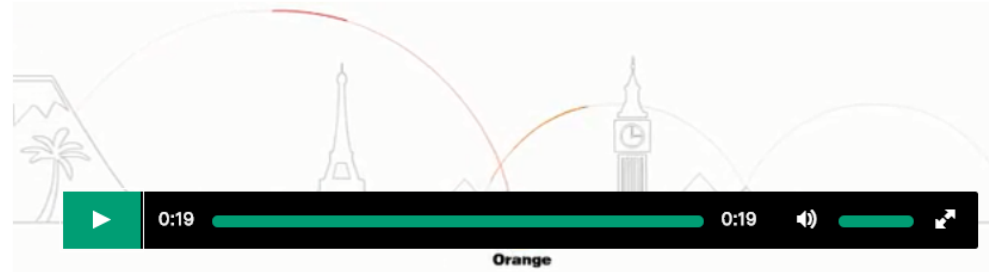
- The fixed sub-system transmits a non-predictable number RAND to the MS.
- The MS computes the signature of RAND, say SRES, using algorithm A3, and some secret information : the Subscriber Authentication Key, denoted Ki in the sequel.
- The MS transmits the signature SRES to the fixed sub-system.
- The fixed sub-system tests SRES for validity.

(Source: [https://www.etsi.org/deliver/etsi\\_gts/03/0320/03.03.02\\_60/gsmmts\\_0320sv030302p.pdf](https://www.etsi.org/deliver/etsi_gts/03/0320/03.03.02_60/gsmmts_0320sv030302p.pdf))

	 <p>(Glocalme G3)</p>
<p>[3f] authenticating said foreign wireless client and/or said extension unit according to the received authentication information by said service provider; and</p>	<p>uCloudlink's Accused System and Method comprise authenticating said foreign wireless client and/or said extension unit according to the received authentication information by said service provider (e.g., subscriber identity authentication).</p>



## How it works

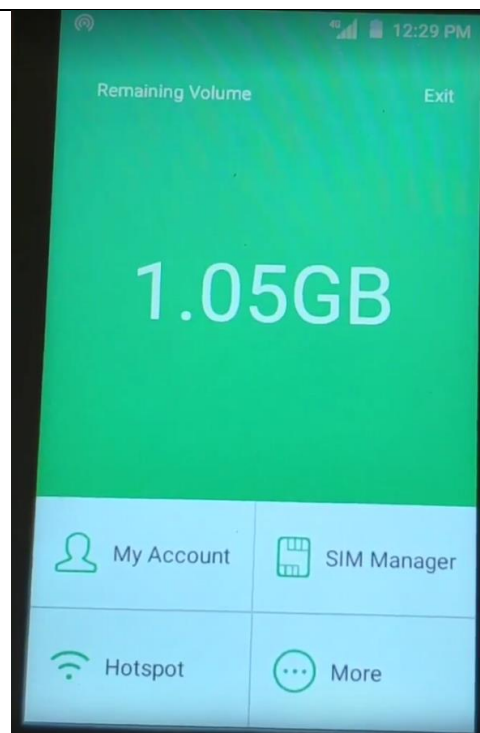


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(Source: <https://www.kickstarter.com/projects/787756203/glocalme-kills-sim-card-and-roaming-pains/description>)

	<p><b>Page 10</b>  <b>GSM 03.20 - version 3.3.2 : January 1991</b></p> <p><b>3. SUBSCRIBER IDENTITY AUTHENTICATION</b></p> <p><b>3.1 Generality</b></p> <p>Definition and operational requirements of subscriber identity authentication are given in Recommendation GSM 02.09.</p> <p>The authentication procedure will be also used to perform the cipher key-setting (see Section 4) on dedicated signalling channels. Therefore, it is performed after the subscriber identity (TMSI/IMSI) is known by the network and before the channel is encrypted.</p> <p>Two network functions are necessary: the authentication procedure itself, and the key management inside the fixed sub-system.</p> <p><b>3.2 The authentication procedure</b></p> <p>The authentication procedure consists in the following exchange between the fixed sub-system and the MS.</p> <ul style="list-style-type: none"> <li>- The fixed sub-system transmits a non-predictable number RAND to the MS.</li> <li>- The MS computes the signature of RAND, say SRES, using algorithm A3, and some secret information : the Subscriber Authentication Key, denoted Ki in the sequel.</li> <li>- The MS transmits the signature SRES to the fixed sub-system.</li> <li>- The fixed sub-system tests SRES for validity.</li> </ul> <p>(Source: <a href="https://www.etsi.org/deliver/etsi_gts/03/0320/03.03.02_60/gsmmts_0320sv030302p.pdf">https://www.etsi.org/deliver/etsi_gts/03/0320/03.03.02_60/gsmmts_0320sv030302p.pdf</a>)</p>
<p>[3g] providing said data link, which is different to said command link, upon said authenticated said foreign wireless client and/or said extension unit.</p>	<p>uCloudlink's Accused System and Method comprise providing said data link (e.g., provision of data and/or voice services), which is different to said command link, upon said authenticated said foreign wireless client and/or said extension unit.</p>

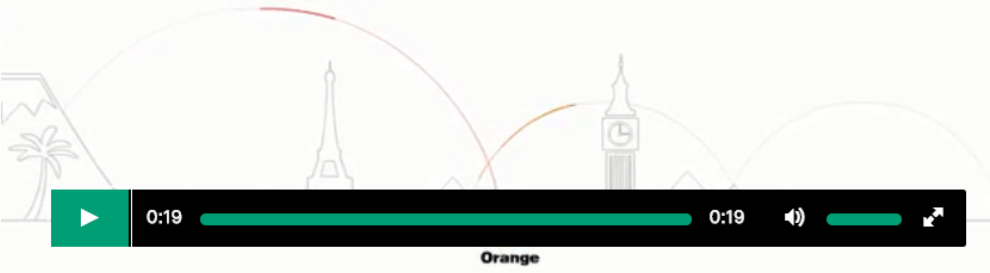


(Glocalme G3)

**Global Data Package**  
——— FIND THE BEST DATA PACKAGE FOR YOUR NEXT JOURNEY ———

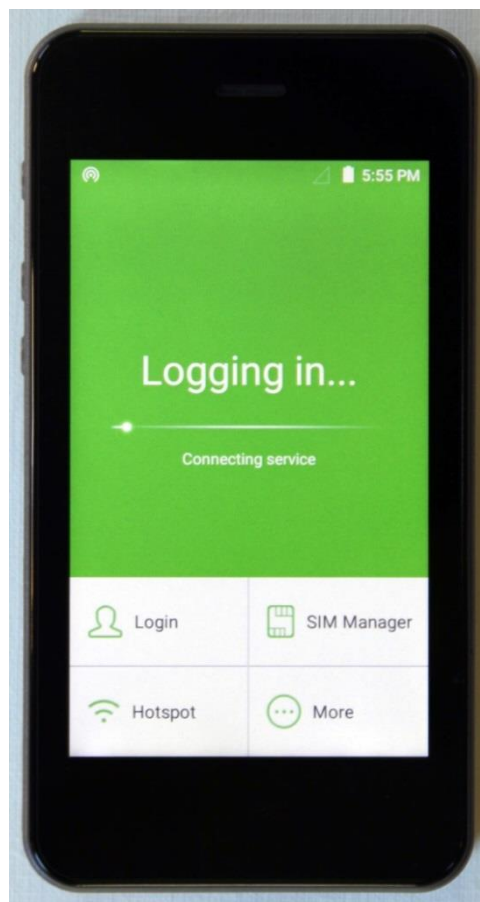
 <p><b>Australia</b> As low as 5 Euros</p>	 <p><b>China</b> As low as 2 Euros</p>	 <p><b>United States</b> As low as 6 Euros <a href="#">Learn more</a></p>	 <p><b>Germany</b> As low as 4 Euros</p>	 <p><b>Brazil</b> As low as 8 Euros</p>
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(Source: <https://www.glocalme.com/>)

	<h2>How it works</h2>  <p>Cloud SIM - The smart switch between mobile networks in over 100 countries</p> <p>Through our patented Cloud SIM technology, GlocalMe taps into a world's worth of SIM cards that are located throughout the globe. Our SIM cloud continues to grow leaps and bounds as we tap into new countries. By turning on the G2, your device will find the most optimal network and the corresponding SIM card in the cloud SIM which starts to convert the local mobile connection into Wi-Fi signals, making sure that it's within "domestic" roaming boundaries, and saving you, the user, from international charges.</p> <p>(Source: <a href="https://www.kickstarter.com/projects/787756203/glocalme-kills-sim-card-and-roaming-pains/description">https://www.kickstarter.com/projects/787756203/glocalme-kills-sim-card-and-roaming-pains/description</a>)</p>
Claim 4	uCloudlink Accused System and Method
[4pre] The method of claim 1, wherein the establishing a local authentication information step further comprising:	See [1pre] and [1g].
[4a] sending a request for the	uCloudlink's Accused System and Method comprise sending a request for the communication service

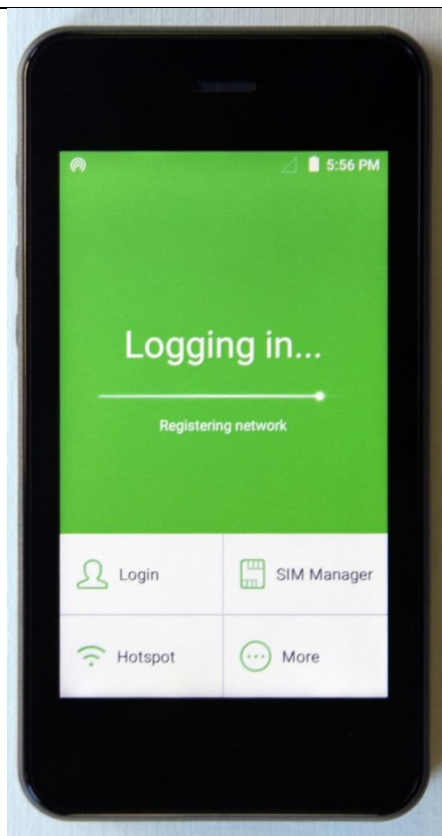
communication service from said extension unit to said service provider over a command link;

from said extension unit to said service provider over a command link (e.g., a request to register with the local cell network compliant with 2G, 3G, 4G and/or 5G standards).



(GlocalMe G3)

	<p><b>Page 10</b>  <b>GSM 03.20 - version 3.3.2 : January 1991</b></p> <p><b>3. SUBSCRIBER IDENTITY AUTHENTICATION</b></p> <p><b>3.1 Generality</b></p> <p>Definition and operational requirements of subscriber identity authentication are given in Recommendation GSM 02.09.</p> <p>The authentication procedure will be also used to perform the cipher key-setting (see Section 4) on dedicated signalling channels. Therefore, it is performed after the subscriber identity (TMSI/IMSI) is known by the network and before the channel is encrypted.</p> <p>Two network functions are necessary: the authentication procedure itself, and the key management inside the fixed sub-system.</p> <p><b>3.2 The authentication procedure</b></p> <p>The authentication procedure consists in the following exchange between the fixed sub-system and the MS.</p> <ul style="list-style-type: none"> <li>- The fixed sub-system transmits a non-predictable number RAND to the MS.</li> <li>- The MS computes the signature of RAND, say SRES, using algorithm A3, and some secret information : the Subscriber Authentication Key, denoted Ki in the sequel.</li> <li>- The MS transmits the signature SRES to the fixed sub-system.</li> <li>- The fixed sub-system tests SRES for validity.</li> </ul> <p>(Source: <a href="https://www.etsi.org/deliver/etsi_gts/03/0320/03.03.02_60/gsmmts_0320sv030302p.pdf">https://www.etsi.org/deliver/etsi_gts/03/0320/03.03.02_60/gsmmts_0320sv030302p.pdf</a>)</p>
[4b] responding by requesting authentication information from said service provider to said extension over said command link;	<p>uCloudlink's Accused System and Method comprise responding by requesting authentication information from said service provider to said extension over said command link (e.g., authentication request compliant with 2G, 3G, 4G and/or 5G standards)</p>



(GlocalMe G3)



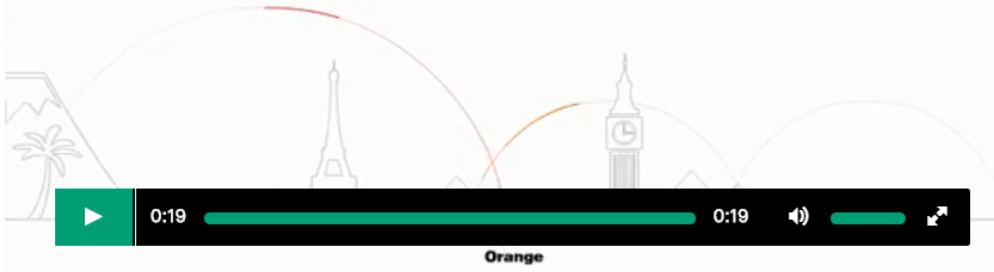
	<p><b>Page 10</b>  <b>GSM 03.20 - version 3.3.2 : January 1991</b></p> <p><b>3. SUBSCRIBER IDENTITY AUTHENTICATION</b></p> <p><b>3.1 Generality</b></p> <p>Definition and operational requirements of subscriber identity authentication are given in Recommendation GSM 02.09.</p> <p>The authentication procedure will be also used to perform the cipher key-setting (see Section 4) on dedicated signalling channels. Therefore, it is performed after the subscriber identity (TMSI/IMSI) is known by the network and before the channel is encrypted.</p> <p>Two network functions are necessary: the authentication procedure itself, and the key management inside the fixed sub-system.</p> <p><b>3.2 The authentication procedure</b></p> <p>The authentication procedure consists in the following exchange between the fixed sub-system and the MS.</p> <ul style="list-style-type: none"> <li>- The fixed sub-system transmits a non-predictable number RAND to the MS.</li> <li>- The MS computes the signature of RAND, say SRES, using algorithm A3, and some secret information : the Subscriber Authentication Key, denoted Ki in the sequel.</li> <li>- The MS transmits the signature SRES to the fixed sub-system.</li> <li>- The fixed sub-system tests SRES for validity.</li> </ul> <p>(Source: <a href="https://www.etsi.org/deliver/etsi_gts/03/0320/03.03.02_60/gsmmts_0320sv030302p.pdf">https://www.etsi.org/deliver/etsi_gts/03/0320/03.03.02_60/gsmmts_0320sv030302p.pdf</a>)</p>
<p>[4c] requesting said local authentication information by said extension unit from said remote administration system over said established data link;</p>	<p>uCloudlink's Accused System and Method comprise requesting said local authentication information t (e.g., request sent to the server to authenticate the "cloud SIM") by said extension unit from said remote administration system (e.g., uCloudlink's "PaaS" platform) over said established data link.</p>



(Glocalme G3)



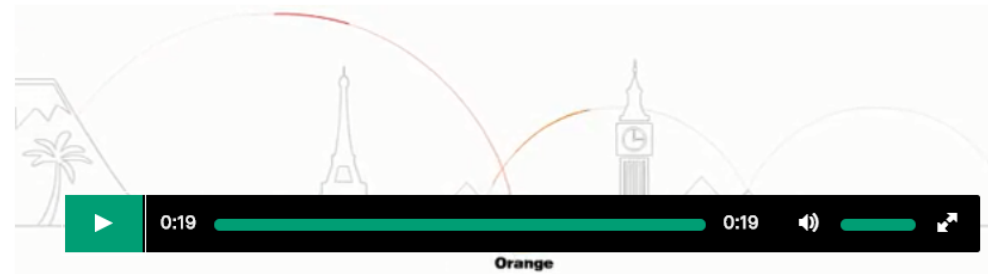
(Glocalme G3)

	<h2>How it works</h2>  <p><b>Cloud SIM - The smart switch between mobile networks in over 100 countries</b></p> <p>Through our patented Cloud SIM technology, GlocalMe taps into a world's worth of SIM cards that are located throughout the globe. Our SIM cloud continues to grow leaps and bounds as we tap into new countries. By turning on the G2, your device will find the most optimal network and the corresponding SIM card in the cloud SIM which starts to convert the local mobile connection into Wi-Fi signals, making sure that it's within "domestic" roaming boundaries, and saving you, the user, from international charges.</p> <p>(Source: <a href="https://www.kickstarter.com/projects/787756203/glocalme-kills-sim-card-and-roaming-pains/description">https://www.kickstarter.com/projects/787756203/glocalme-kills-sim-card-and-roaming-pains/description</a>)</p>
<p>[4d] looking for suitable local authentication information from said at least one authentication bank in response to the requested local authentication information; and</p>	<p>uCloudlink's Accused System and Method comprise looking for suitable local authentication information from said at least one authentication bank in response to the requested local authentication information.</p>



(Source: <https://www.glocalme.com/mall/wifi?type=g3&qiso=US>)

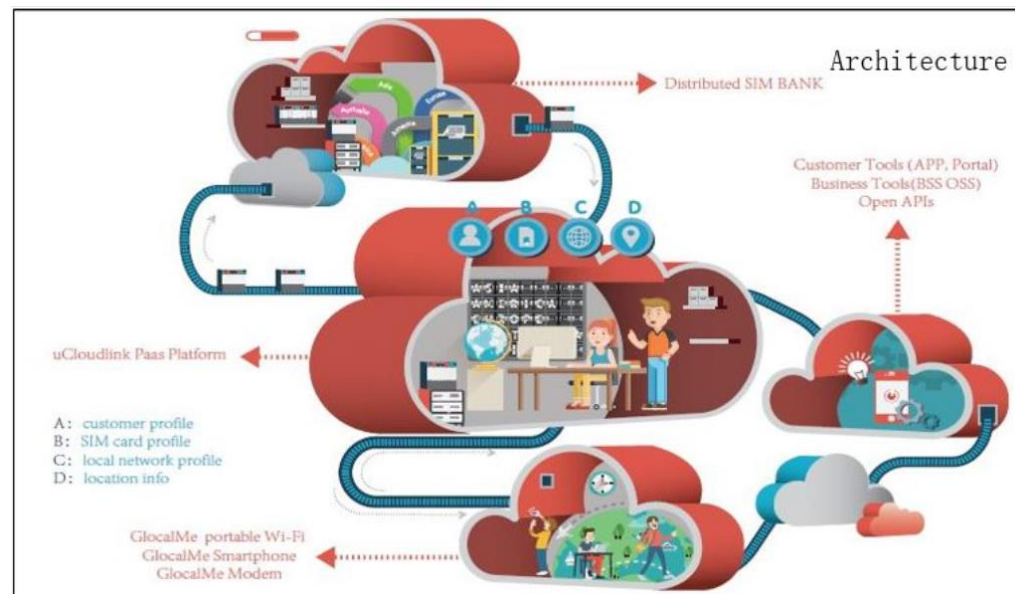
## How it works



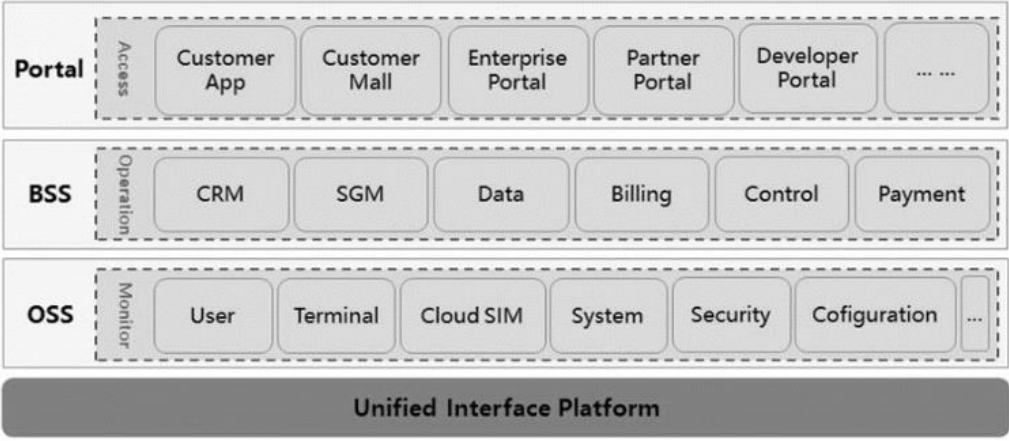
### Cloud SIM - The smart switch between mobile networks in over 100 countries

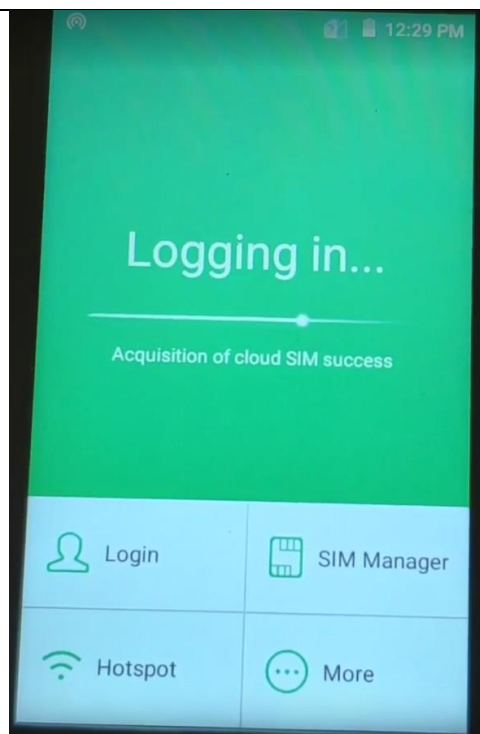
Through our patented Cloud SIM technology, GlocalMe taps into a world's worth of SIM cards that are located throughout the globe. Our SIM cloud continues to grow leaps and bounds as we tap into new countries. By turning on the G2, your device will find the most optimal network and the corresponding SIM card in the cloud SIM which starts to convert the local mobile connection into Wi-Fi signals, making sure that it's within "domestic" roaming boundaries, and saving you, the user, from international charges.

(Source: <https://www.kickstarter.com/projects/787756203/glocalme-kills-sim-card-and-roaming-pains/description>)



(Source: <https://www.ucloudlink.com/html/paas-platform/>)

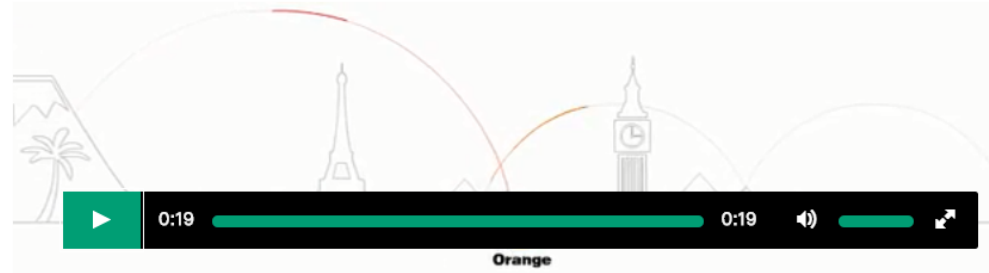
	<p style="text-align: center;"><b>uCloudlink PaaS Cloud</b></p>  <p>The diagram illustrates the uCloudlink PaaS Cloud architecture, organized into three main functional layers, each supported by a Unified Interface Platform at the base.</p> <ul style="list-style-type: none"> <li><b>Portal Layer:</b> Labeled 'Access' on the left, it includes components: Customer App, Customer Mall, Enterprise Portal, Partner Portal, Developer Portal, and an ellipsis (...).</li> <li><b>BSS Layer:</b> Labeled 'Operation' on the left, it includes components: CRM, SGM, Data, Billing, Control, and Payment.</li> <li><b>OSS Layer:</b> Labeled 'Monitor' on the left, it includes components: User, Terminal, Cloud SIM, System, Security, Configuration, and an ellipsis (...).</li> </ul> <p style="text-align: center;"><b>Unified Interface Platform</b></p> <p>(Source: <a href="https://www.ucloudlink.com/html/paas-platform/">https://www.ucloudlink.com/html/paas-platform/</a>)</p>
<p>[4e] sending said suitable local authentication information found from said at least one authentication bank to said extension unit from said remote administration system over said established data link.</p>	<p>uCloudlink's Accused System and Method comprise sending said suitable local authentication information found from said at least one authentication bank to said extension unit from said remote administration system (e.g., uCloudlink's "PaaS" Platform) over said established data link.</p>



(Glocalme G3)



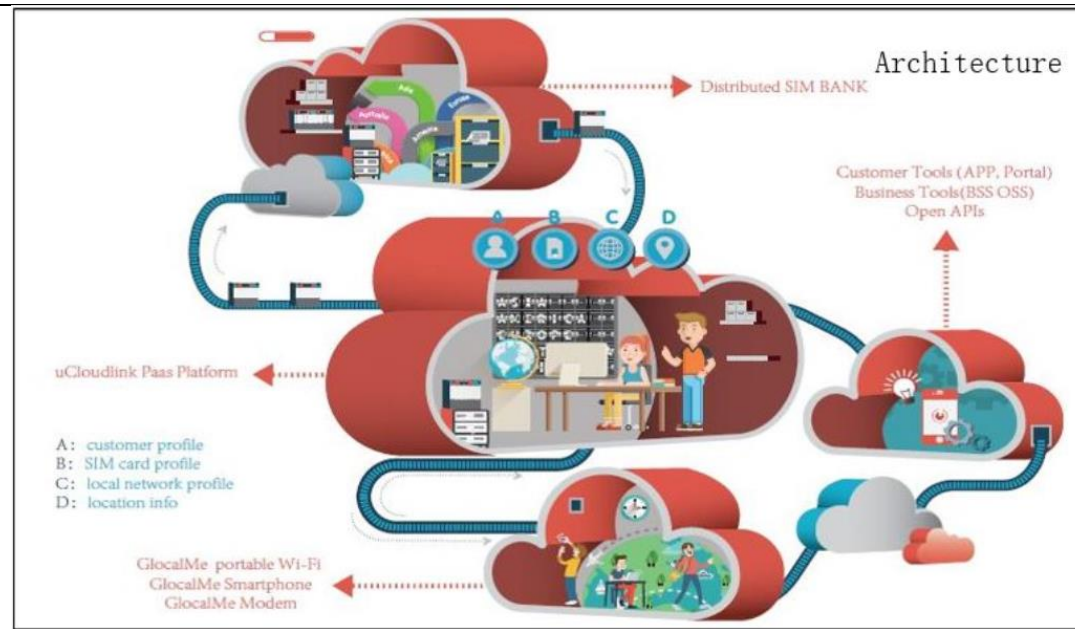
## How it works



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(Source: <https://www.kickstarter.com/projects/787756203/glocalme-kills-sim-card-and-roaming-pains/description>)



(Source: <https://www.ucloudlink.com/html/paas-platform/>)

	<p style="text-align: center;"><b>uCloudlink PaaS Cloud</b></p> <p>The diagram illustrates the uCloudlink PaaS Cloud architecture. It consists of three main functional layers stacked vertically, all supported by a 'Unified Interface Platform' at the base. The top layer, labeled 'Portal' with a vertical 'Access' tag, includes components like 'Customer App', 'Customer Mall', 'Enterprise Portal', 'Partner Portal', 'Developer Portal', and an ellipsis. The middle layer, labeled 'BSS' with a vertical 'Operation' tag, includes 'CRM', 'SGM', 'Data', 'Billing', 'Control', and 'Payment'. The bottom layer, labeled 'OSS' with a vertical 'Monitor' tag, includes 'User', 'Terminal', 'Cloud SIM', 'System', 'Security', 'Cofiguration', and an ellipsis.</p> <p>(Source: <a href="https://www.ucloudlink.com/html/paas-platform/">https://www.ucloudlink.com/html/paas-platform/</a>)</p>
<b>Claim 8</b>	<b>uCloudlink Accused System and Method</b>
[8pre] The method of claim 1, wherein the establishing a virtual local wireless service step further comprising:	See [1pre] and [1i].
[8a] sending said obtained suitable local authentication information by said extension unit to said service provider; and	uCloudlink's Accused System and Method comprise sending said obtained suitable local authentication information by said extension unit to said service provider (e.g., authentication response compliant with 2G, 3G, 4G and/or 5G standards).

Page 10  
GSM 03.20 - version 3.3.2 : January 1991

### **3. SUBSCRIBER IDENTITY AUTHENTICATION**

#### **3.1 Generality**

Definition and operational requirements of subscriber identity authentication are given in Recommendation GSM 02.09.

The authentication procedure will be also used to perform the cipher key-setting (see Section 4) on dedicated signalling channels. Therefore, it is performed after the subscriber identity (TMSI/IMSI) is known by the network and before the channel is encrypted.

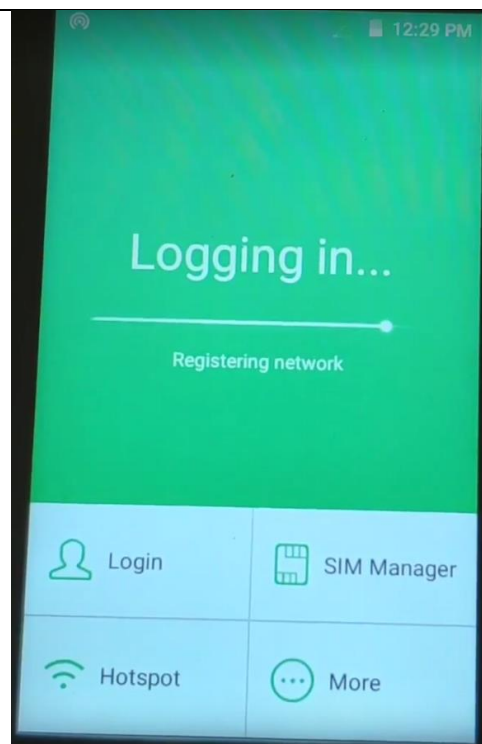
Two network functions are necessary: the authentication procedure itself, and the key management inside the fixed sub-system.

#### **3.2 The authentication procedure**

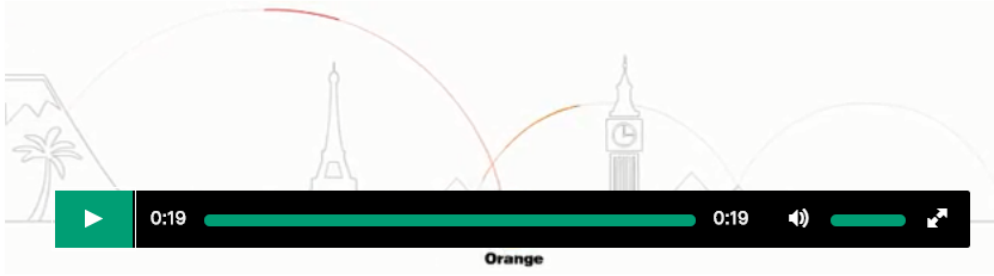
The authentication procedure consists in the following exchange between the fixed sub-system and the MS.

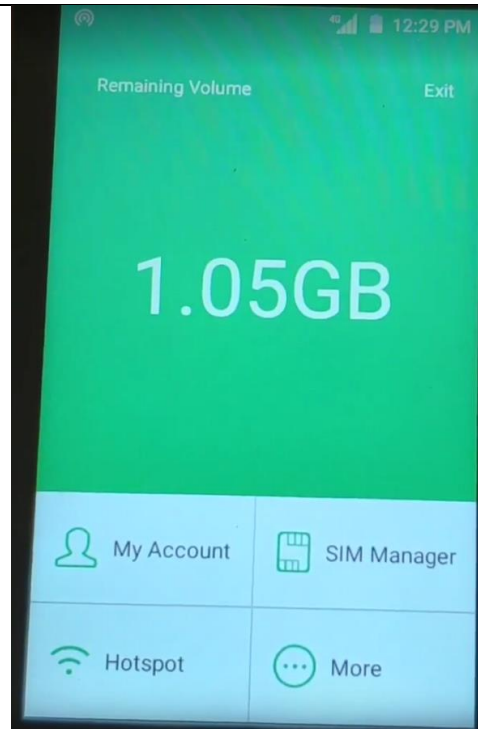
- The fixed sub-system transmits a non-predictable number RAND to the MS.
- The MS computes the signature of RAND, say SRES, using algorithm A3, and some secret information : the Subscriber Authentication Key, denoted Ki in the sequel.
- The MS transmits the signature SRES to the fixed sub-system.
- The fixed sub-system tests SRES for validity.

(Source: [https://www.etsi.org/deliver/etsi\\_gts/03/0320/03.03.02\\_60/gsm03\\_0320sv030302p.pdf](https://www.etsi.org/deliver/etsi_gts/03/0320/03.03.02_60/gsm03_0320sv030302p.pdf))

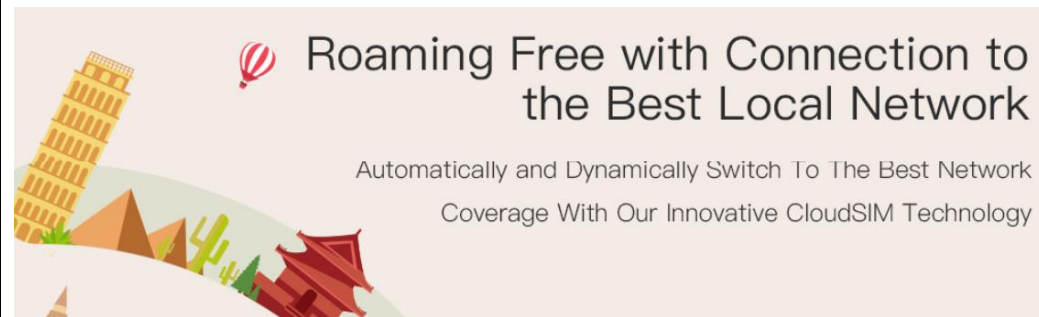


(Glocalme G3)

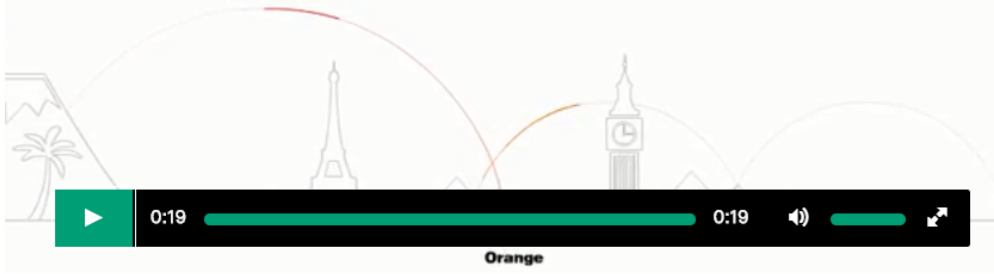
	<h2>How it works</h2>  <p>Cloud SIM - The smart switch between mobile networks in over 100 countries</p> <p>Through our patented Cloud SIM technology, GlocalMe taps into a world's worth of SIM cards that are located throughout the globe. Our SIM cloud continues to grow leaps and bounds as we tap into new countries. By turning on the G2, your device will find the most optimal network and the corresponding SIM card in the cloud SIM which starts to convert the local mobile connection into Wi-Fi signals, making sure that it's within "domestic" roaming boundaries, and saving you, the user, from international charges.</p> <p>(Source: <a href="https://www.kickstarter.com/projects/787756203/glocalme-kills-sim-card-and-roaming-pains/description">https://www.kickstarter.com/projects/787756203/glocalme-kills-sim-card-and-roaming-pains/description</a>)</p>
[8b] authenticating said extension unit as said virtual local wireless communication device.	uCloudlink's Accused System and Method comprise authenticating said extension unit as said virtual local wireless communication device.



(Glocalme G3)



(Source: <https://www.glocalme.com/mall/wifi?type=g3&qiso=US>)

	<h2>How it works</h2>  <p>Cloud SIM - The smart switch between mobile networks in over 100 countries</p> <p>Through our patented Cloud SIM technology, GlocalMe taps into a world's worth of SIM cards that are located throughout the globe. Our SIM cloud continues to grow leaps and bounds as we tap into new countries. By turning on the G2, your device will find the most optimal network and the corresponding SIM card in the cloud SIM which starts to convert the local mobile connection into Wi-Fi signals, making sure that it's within "domestic" roaming boundaries, and saving you, the user, from international charges.</p> <p>(Source: <a href="https://www.kickstarter.com/projects/787756203/glocalme-kills-sim-card-and-roaming-pains/description">https://www.kickstarter.com/projects/787756203/glocalme-kills-sim-card-and-roaming-pains/description</a>)</p>
Claim 9	uCloudlink Accused System and Method
[9pre] The method of claim 8, wherein the providing a communication step further comprising:	See [8pre].

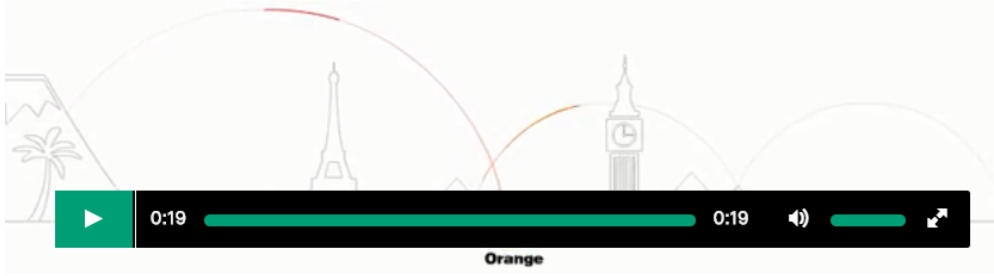


[9a] providing a communication service to said extension unit according to said authenticating said extension unit as said virtual local wireless communication device;

uCloudlink's Accused System and Method comprise providing a communication service to said extension unit according to said authenticating said extension unit as said virtual local wireless communication device.

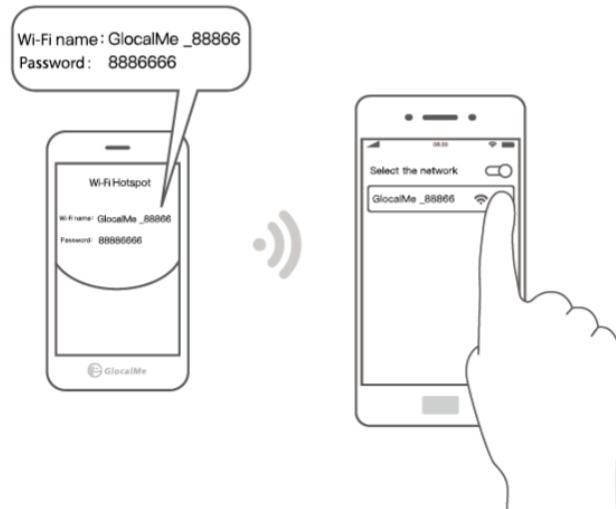


(Source: <https://www.glocalme.com/mall/wifi?type=g3&qiso=US>)


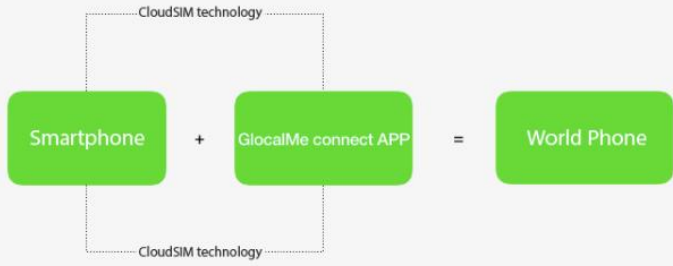
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[9b] providing a conduit for said communication service by said extension unit to said foreign wireless client; and	uCloudlink's Accused System and Method comprise providing a conduit for said communication service by said extension unit to said foreign wireless client.

## 5 Connect GlocalMe Wi-Fi

- Press **Hotspot** on G3 and find the Wi-Fi name and password
- Connect your mobile device in Wi-Fi setting



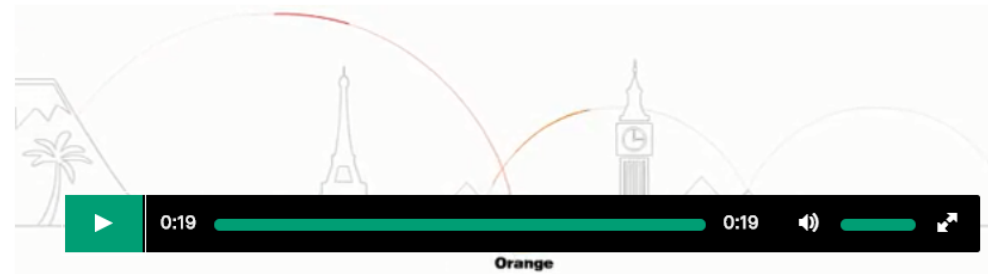
(Source: <https://www.glocalme.com/service/instruction?qiso=US>)

	 <p>S1</p> <p><b>GlocalMe® Inside Global Mobile Data Solution</b></p>  <p>(Source: <a href="https://www.ucloudlink.com/html/world-phone/">https://www.ucloudlink.com/html/world-phone/</a>)</p>
<p>[9c] communicating with a destination device by said foreign wireless client via said extension unit.</p>	<p>uCloudlink's Accused System and Method comprise communicating with a destination device by said foreign wireless client via said extension unit.</p>



(Source: <https://www.glocalme.com/mall/wifi?type=g3&qiso=US>)

## How it works



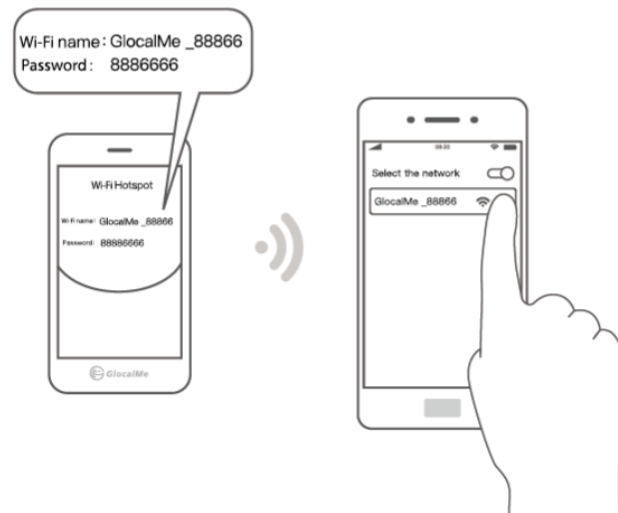
### Cloud SIM - The smart switch between mobile networks in over 100 countries

Through our patented Cloud SIM technology, GlocalMe taps into a world's worth of SIM cards that are located throughout the globe. Our SIM cloud continues to grow leaps and bounds as we tap into new countries. By turning on the G2, your device will find the most optimal network and the corresponding SIM card in the cloud SIM which starts to convert the local mobile connection into Wi-Fi signals, making sure that it's within "domestic" roaming boundaries, and saving you, the user, from international charges.

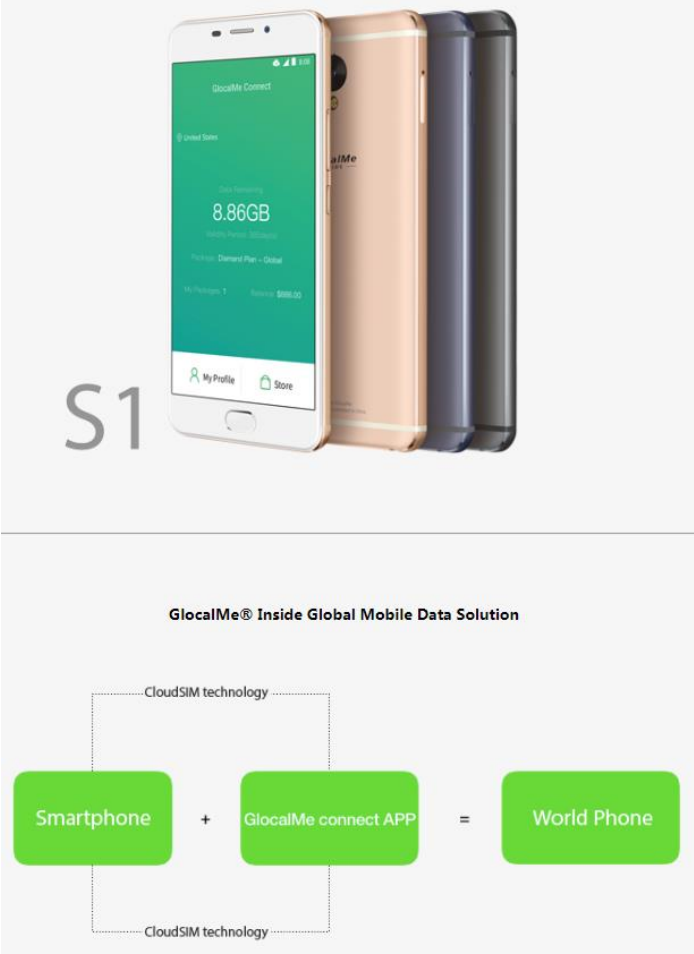
(Source: <https://www.kickstarter.com/projects/787756203/glocalme-kills-sim-card-and-roaming-pains/description>)

## 5 Connect GlocalMe Wi-Fi

- Press **Hotspot** on G3 and find the Wi-Fi name and password
- Connect your mobile device in Wi-Fi setting



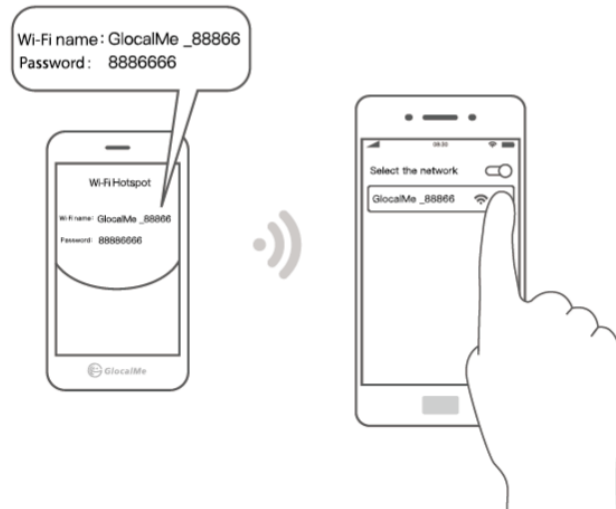
(Source: <https://www.glocalme.com/service/instruction?qiso=US>)

	 <p>(Source: <a href="https://www.ucloudlink.com/html/world-phone/">https://www.ucloudlink.com/html/world-phone/</a>)</p>
Claim 13	uCloudlink Accused System and Method
[13] The method of claim 1, wherein said foreign wireless	In uCloudlink's Accused System and Method, said foreign wireless client and said extension unit are configured to two individual devices.

client and said extension unit are configured to two individual devices.

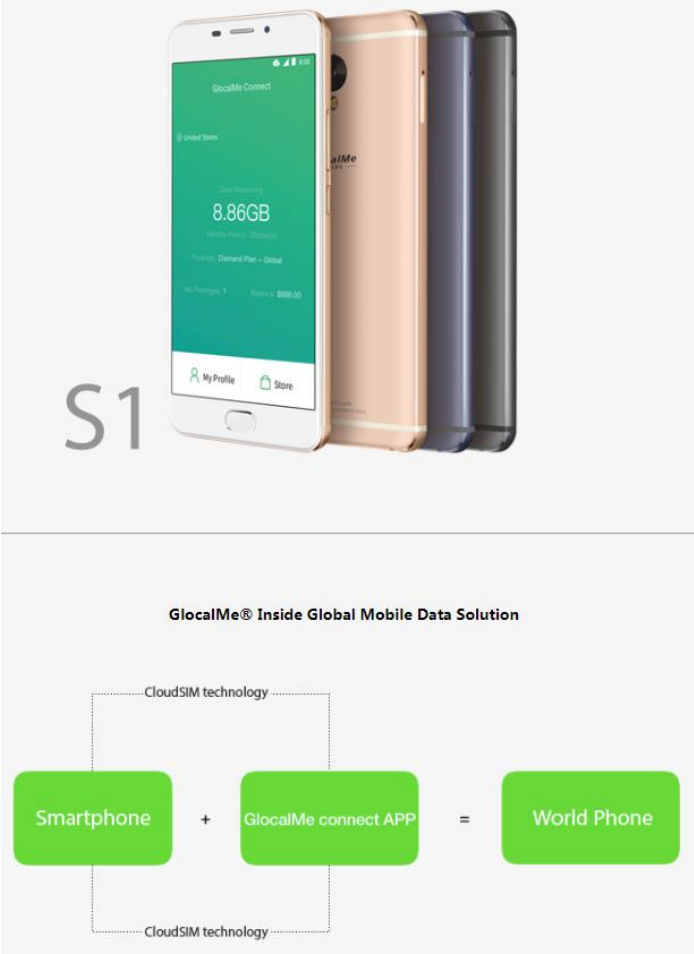
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(Source: <https://www.glocalme.com/service/instruction?qiso=US>)



	 <p>(Source: <a href="https://www.ucloudlink.com/html/world-phone/">https://www.ucloudlink.com/html/world-phone/</a>)</p>
Claim 14	uCloudlink Accused System and Method
[14] The method of claim 1, the method further	In uCloudlink's Accused System and Method, the method further comprising requesting a re-authentication by said service provider to said foreign wireless communication device (e.g., re-

comprising requesting a re-authentication by said service provider to said foreign wireless communication device.

authentication compliant with 2G, 3G, 4G and/or 5G standards.)

**Page 10**  
**GSM 03.20 - version 3.3.2 : January 1991**

### **3. SUBSCRIBER IDENTITY AUTHENTICATION**

#### **3.1 Generality**

Definition and operational requirements of subscriber identity authentication are given in Recommendation GSM 02.09.

The authentication procedure will be also used to perform the cipher key-setting (see Section 4) on dedicated signalling channels. Therefore, it is performed after the subscriber identity (TMSI/IMSI) is known by the network and before the channel is encrypted.

Two network functions are necessary: the authentication procedure itself, and the key management inside the fixed sub-system.

#### **3.2 The authentication procedure**

The authentication procedure consists in the following exchange between the fixed sub-system and the MS.

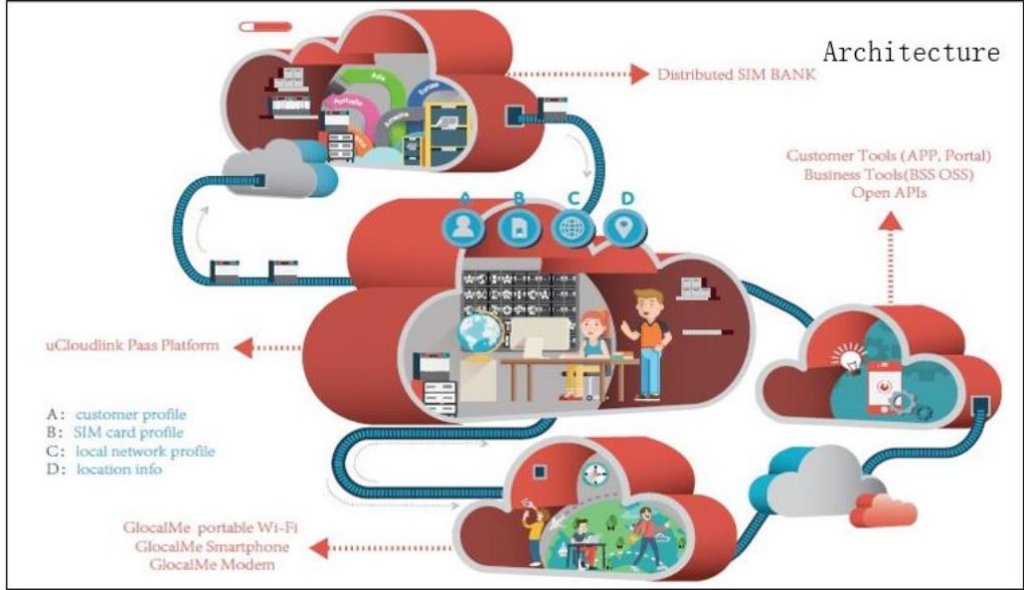
- The fixed sub-system transmits a non-predictable number RAND to the MS.
- The MS computes the signature of RAND, say SRES, using algorithm A3, and some secret information : the Subscriber Authentication Key, denoted Ki in the sequel.
- The MS transmits the signature SRES to the fixed sub-system.
- The fixed sub-system tests SRES for validity.

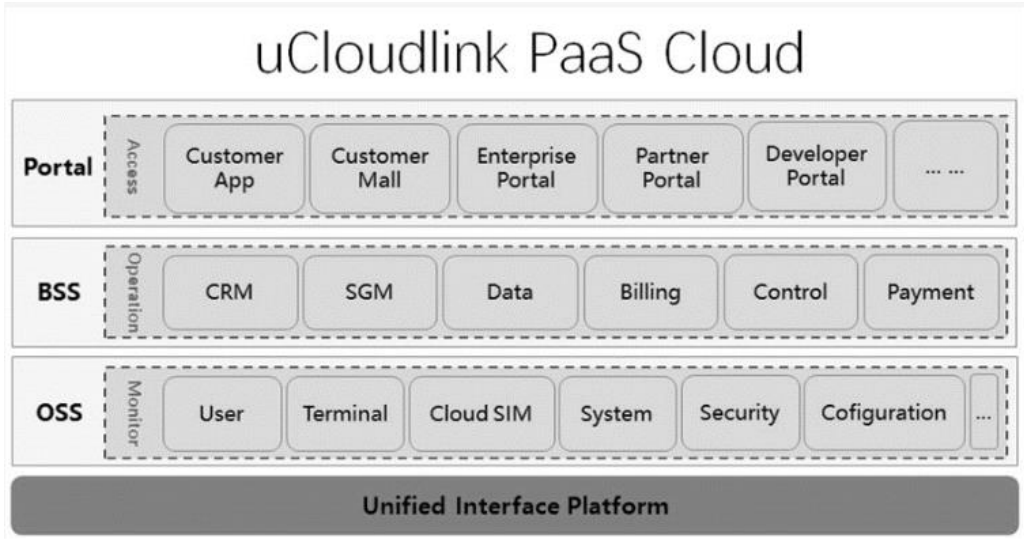
(Source: [https://www.etsi.org/deliver/etsi\\_gts/03/0320/03.03.02\\_60/gsmmts\\_0320sv030302p.pdf](https://www.etsi.org/deliver/etsi_gts/03/0320/03.03.02_60/gsmmts_0320sv030302p.pdf))

## Exhibit 2

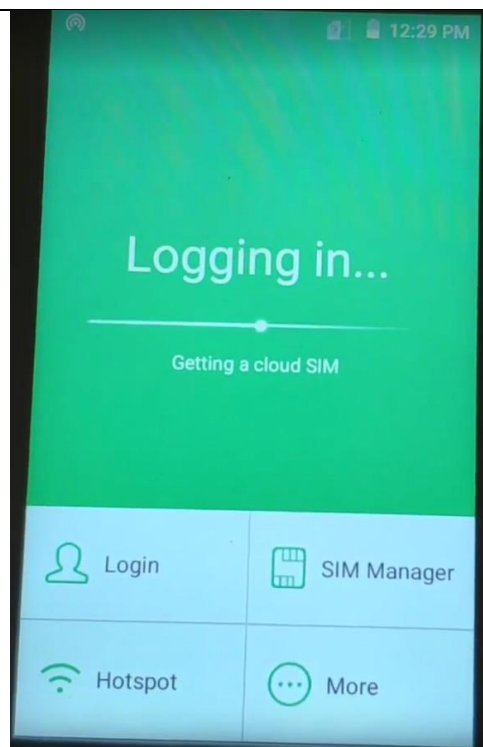
## Exemplary Infringement Claim Chart for U.S. Patent No. 9,736,689

## uCloudlink Accused System and Method

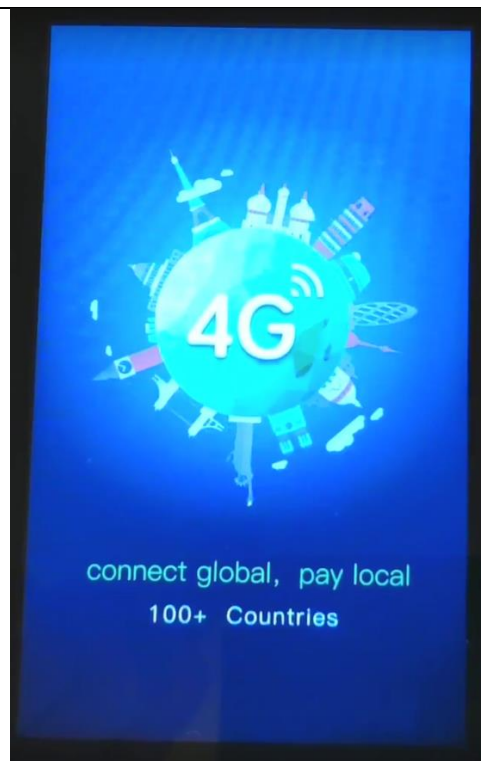
Claim 1	uCloudlink Accused System and Method
<p>[1pre] An authentication bank comprising a plurality of physical identification modules, wherein a physical identification module includes one or more memory, processors, programs, and computer readable media storing subscriber identity module and authentication information, at least one of the one or more programs stored in the memory comprises instructions executable by at least one of the one or more processors for:</p>	<p>To the extent the preamble is determined to be limiting, uCloudlink's Accused System and Method comprise an authentication bank comprising a plurality of physical identification modules (e.g., modules within uCloudlink's "PaaS" platform), wherein a physical identification module includes one or more memory, processors, programs, and computer readable media storing subscriber identity module and authentication information (e.g., SIM profiles within uCloudlink's "PaaS" platform), at least one of the one or more programs stored in the memory comprises instructions executable by at least one of the one or more processors.</p>  <p>The diagram, titled "Architecture", illustrates the system components and their interactions. At the center is the "uCloudlink PaaS Platform", represented by a red cloud containing icons for a person, a SIM card, a globe, and a location pin, labeled A, B, C, and D respectively. To the top left is the "Distributed SIM BANK", another red cloud containing SIM card icons. To the top right are "Customer Tools (APP, Portal)", "Business Tools (BSS OSS)", and "Open APIs". To the bottom left are "GlocalMe" devices: "portable Wi-Fi", "Smartphone", and "Modem". Arrows indicate data flow between these components. A legend at the bottom left defines the labels: A: customer profile, B: SIM card profile, C: local network profile, and D: location info.</p>

	<p>(Source: <a href="https://www.ucloudlink.com/html/paas-platform/">https://www.ucloudlink.com/html/paas-platform/</a>)</p>  <p>The diagram illustrates the uCloudlink PaaS Cloud architecture. It consists of three main layers stacked on top of a 'Unified Interface Platform' (represented by a dark grey bar at the bottom). The top layer is labeled 'Portal' and is associated with 'Access'. It contains boxes for 'Customer App', 'Customer Mall', 'Enterprise Portal', 'Partner Portal', 'Developer Portal', and an ellipsis. The middle layer is labeled 'BSS' and is associated with 'Operation'. It contains boxes for 'CRM', 'SGM', 'Data', 'Billing', 'Control', and 'Payment'. The bottom layer is labeled 'OSS' and is associated with 'Monitor'. It contains boxes for 'User', 'Terminal', 'Cloud SIM', 'System', 'Security', 'Cofiguration', and an ellipsis. Each layer is enclosed in a dashed-line box.</p> <p>(Source: <a href="https://www.ucloudlink.com/html/paas-platform/">https://www.ucloudlink.com/html/paas-platform/</a>)</p>
<p>[1a] receiving a first request for authentication information, wherein the first request was transmitted over a data channel, for associating a subscriber identity module (SIM) with a foreign wireless communication client or an extension unit, wherein the SIM is subscribed to a local carrier for a current location of the foreign wireless communication client or the extension unit, wherein the foreign wireless</p>	<p>uCloudlink's Accused System and Method comprise receiving a first request (e.g., request sent to the server to authenticate the "cloud SIM") for authentication information, wherein the first request was transmitted over a data channel, for associating a subscriber identity module (SIM) (e.g., a SIM located at uCloudlink's "PaaS" platform) with a foreign wireless communication client or an extension unit (e.g., a Wifi hotspot device or a mobile phone roaming in a foreign country), wherein the SIM is subscribed to a local carrier for a current location of the foreign wireless communication client or the extension unit, wherein the foreign wireless communication client or the extension unit is a wireless device not subscribed to the local carrier, and wherein the first request for authentication information comprises information regarding a second request (e.g., authentication request compliant with 2G, 3G, 4G and/or 5G standards) for local authentication information received by the foreign wireless communication client or the extension unit from the local carrier over a local cellular communication network.</p>

<p>communication client or the extension unit is a wireless device not subscribed to the local carrier, and wherein the first request for authentication information comprises information regarding a second request for local authentication information received by the foreign wireless communication client or the extension unit from the local carrier over a local cellular communication network;</p>	<p><b>Page 10</b>  <b>GSM 03.20 - version 3.3.2 : January 1991</b></p> <p><b>3. SUBSCRIBER IDENTITY AUTHENTICATION</b></p> <p><b>3.1 Generality</b></p> <p>Definition and operational requirements of subscriber identity authentication are given in Recommendation GSM 02.09.</p> <p>The authentication procedure will be also used to perform the cipher key-setting (see Section 4) on dedicated signalling channels. Therefore, it is performed after the subscriber identity (TMSI/IMSI) is known by the network and before the channel is encrypted.</p> <p>Two network functions are necessary: the authentication procedure itself, and the key management inside the fixed sub-system.</p> <p><b>3.2 The authentication procedure</b></p> <p>The authentication procedure consists in the following exchange between the fixed sub-system and the MS.</p> <ul style="list-style-type: none"> <li>- The fixed sub-system transmits a non-predictable number RAND to the MS.</li> <li>- The MS computes the signature of RAND, say SRES, using algorithm A3, and some secret information : the Subscriber Authentication Key, denoted Ki in the sequel.</li> <li>- The MS transmits the signature SRES to the fixed sub-system.</li> <li>- The fixed sub-system tests SRES for validity.</li> </ul> <p>(Source: <a href="https://www.etsi.org/deliver/etsi_gts/03/0320/03.03.02_60/gsmmts_0320sv030302p.pdf">https://www.etsi.org/deliver/etsi_gts/03/0320/03.03.02_60/gsmmts_0320sv030302p.pdf</a>)</p>
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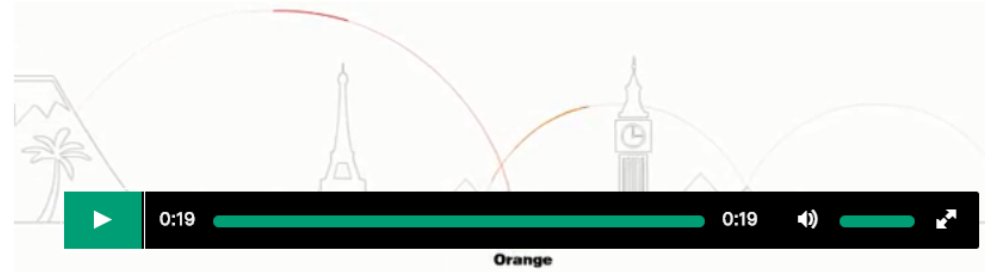


(Glocalme G3)



(Glocalme G3)

## How it works

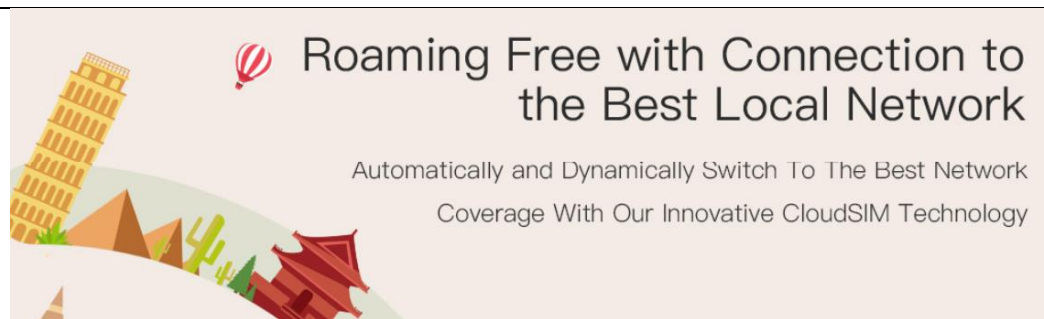


### Cloud SIM - The smart switch between mobile networks in over 100 countries

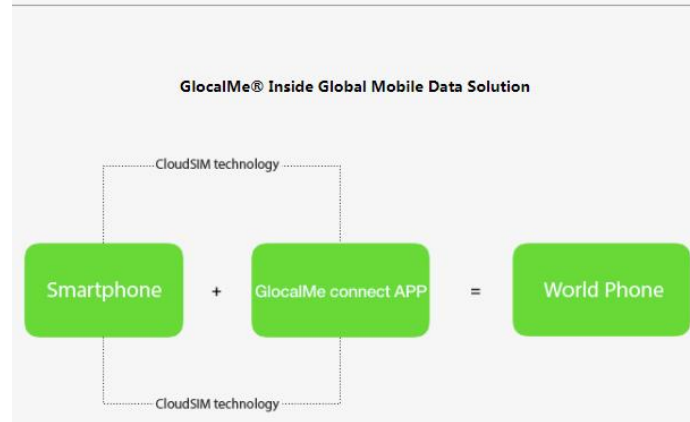
Through our patented Cloud SIM technology, GlocalMe taps into a world's worth of SIM cards that are located throughout the globe. Our SIM cloud continues to grow leaps and bounds as we tap into new countries. By turning on the G2, your device will find the most optimal network and the corresponding SIM card in the cloud SIM which starts to convert the local mobile connection into Wi-Fi signals, making sure that it's within "domestic" roaming boundaries, and saving you, the user, from international charges.

(Source: <https://www.kickstarter.com/projects/787756203/glocalme-kills-sim-card-and-roaming-pains/description>)

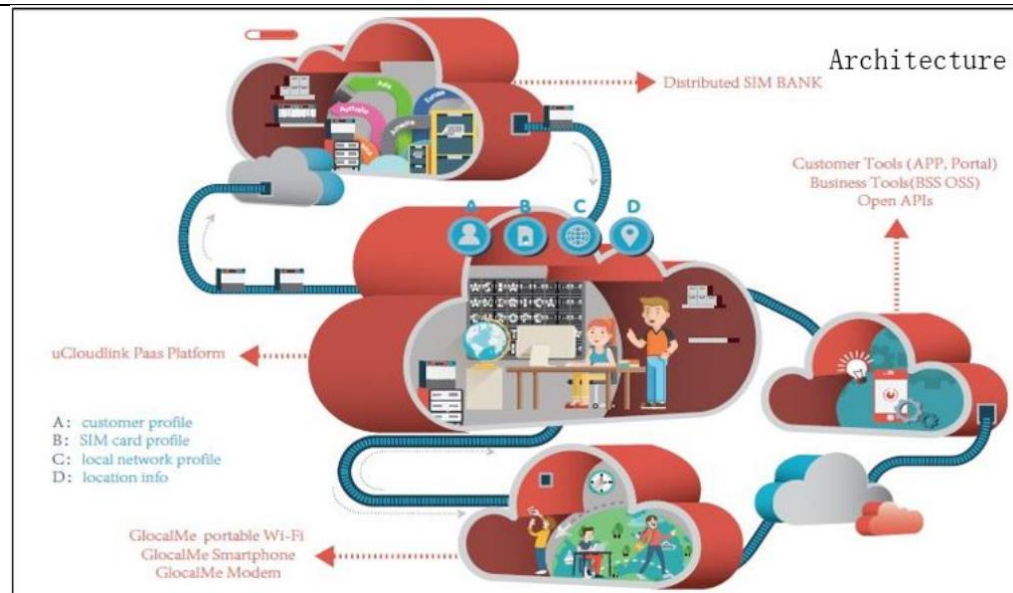




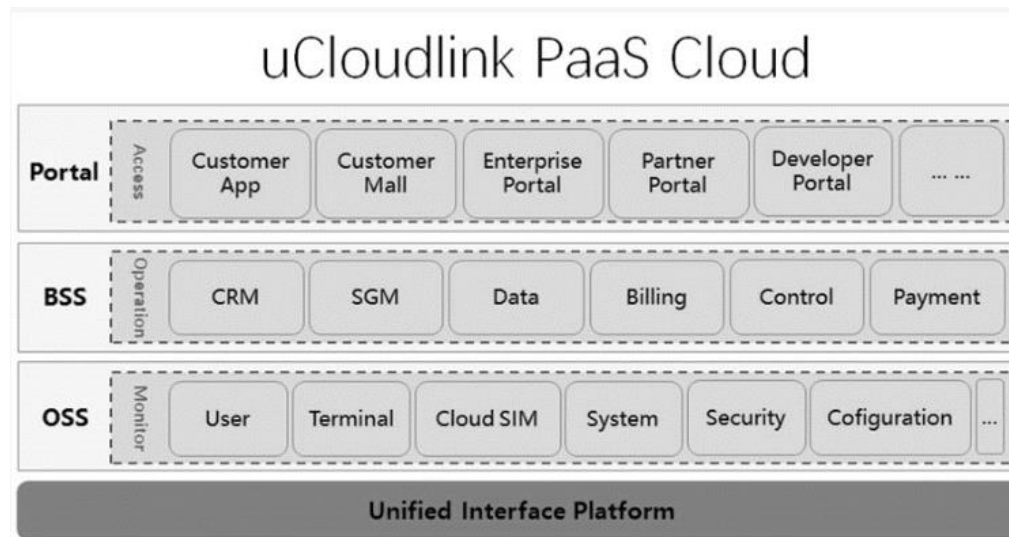
(Source: <https://www.glocalme.com/mall/wifi?type=g3&qiso=US>)



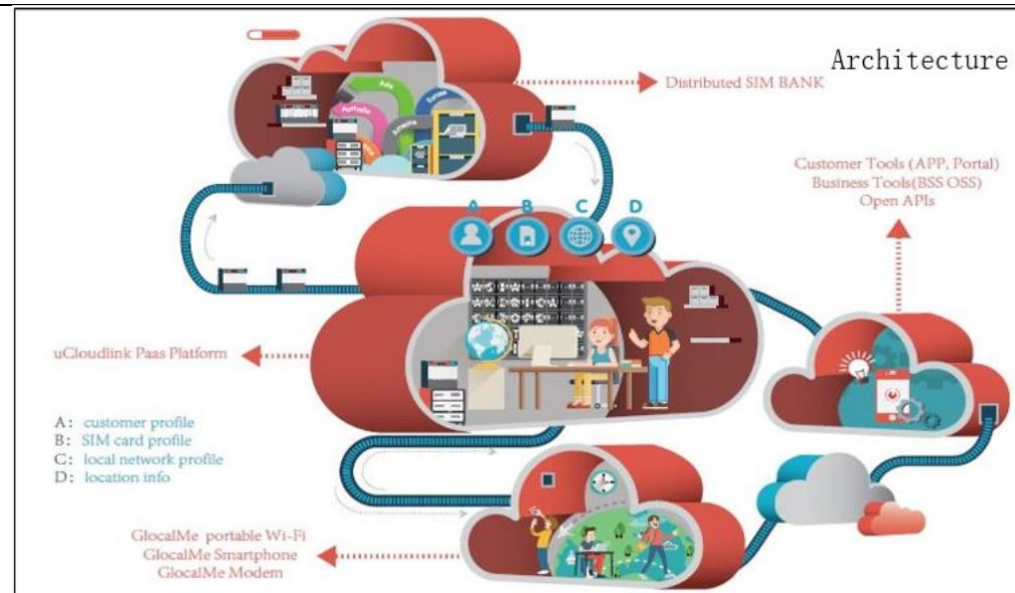
(Source: <https://www.ucloudlink.com/html/world-phone/>)



(Source: <https://www.ucloudlink.com/html/paas-platform/>)



	(Source: <a href="https://www.ucloudlink.com/html/paas-platform/">https://www.ucloudlink.com/html/paas-platform/</a> )
[1b] retrieving subscriber identity information and authentication information for the foreign wireless communication client or the extension unit from the SIM;	<p>uCloudlink's Accused System and Method comprise retrieving subscriber identity information and authentication information for the foreign wireless communication client or the extension unit from the SIM (e.g., a SIM located at uCloudlink's "PaaS" platform).</p> <p><b>Page 10</b>  <b>GSM 03.20 - version 3.3.2 : January 1991</b></p> <p><b>3. SUBSCRIBER IDENTITY AUTHENTICATION</b></p> <p><b>3.1 Generality</b></p> <p>Definition and operational requirements of subscriber identity authentication are given in Recommendation GSM 02.09.</p> <p>The authentication procedure will be also used to perform the cipher key-setting (see Section 4) on dedicated signalling channels. Therefore, it is performed after the subscriber identity (TMSI/IMSI) is known by the network and before the channel is encrypted.</p> <p>Two network functions are necessary: the authentication procedure itself, and the key management inside the fixed sub-system.</p> <p><b>3.2 The authentication procedure</b></p> <p>The authentication procedure consists in the following exchange between the fixed sub-system and the MS.</p> <ul style="list-style-type: none"> <li>- The fixed sub-system transmits a non-predictable number RAND to the MS.</li> <li>- The MS computes the signature of RAND, say SRES, using algorithm A3, and some secret information : the Subscriber Authentication Key, denoted Ki in the sequel.</li> <li>- The MS transmits the signature SRES to the fixed sub-system.</li> <li>- The fixed sub-system tests SRES for validity.</li> </ul> <p>(Source: <a href="https://www.etsi.org/deliver/etsi_gts/03/0320/03.03.02_60/gsm03_0320sv030302p.pdf">https://www.etsi.org/deliver/etsi_gts/03/0320/03.03.02_60/gsm03_0320sv030302p.pdf</a>)</p>

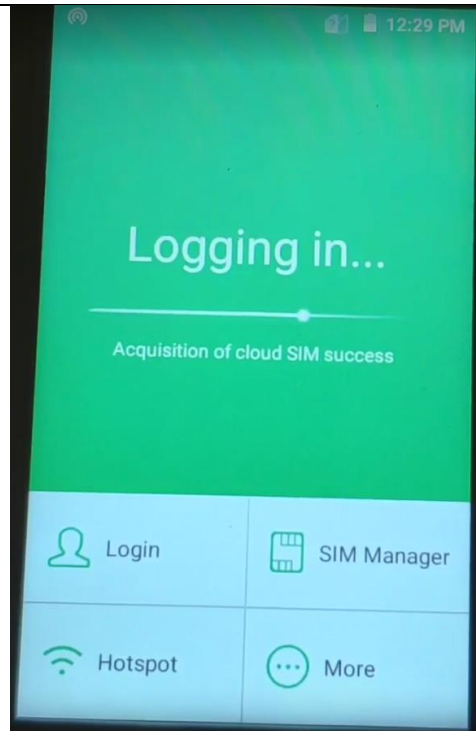


(Source: <https://www.ucloudlink.com/html/paas-platform/>)

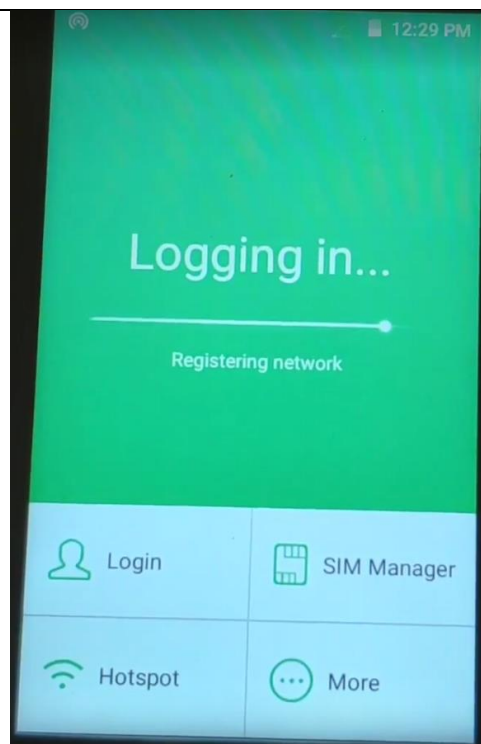
[1c] sending the subscriber identity information and the authentication information to the foreign wireless communication client or the extension unit over the data channel, wherein the data channel is distinct from local wireless services of the local carrier and wherein the authentication information for the foreign wireless communication client or the extension unit retrieved from the SIM is configured to be sent by the foreign

uCloudlink's Accused System and Method comprise sending the subscriber identity information and the authentication information to the foreign wireless communication client or the extension unit over the data channel, wherein the data channel is distinct from local wireless services of the local carrier (e.g., different cell service providers) and wherein the authentication information for the foreign wireless communication client or the extension unit retrieved from the SIM is configured to be sent by the foreign wireless communication client or the extension unit to the local carrier over signal link of the local cellular communication network to provision a communication function from the local carrier for the foreign wireless communication client or the extension unit (e.g., registration with local network and provision of data and/or voice services).

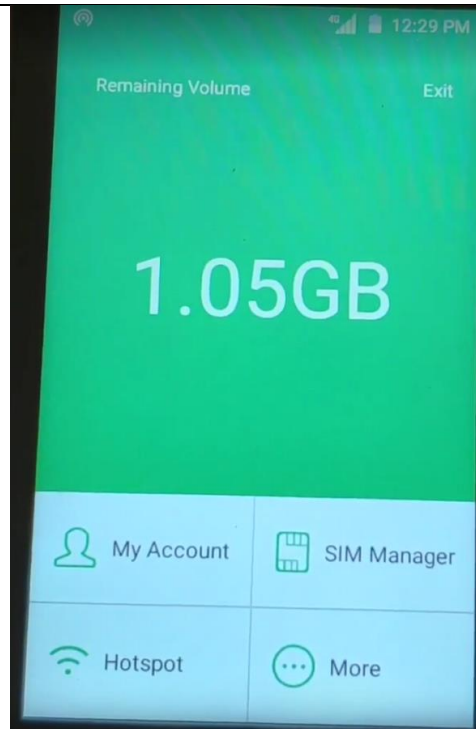
wireless communication client or the extension unit to the local carrier over signal link of the local cellular communication network to provision a communication function from the local carrier for the foreign wireless communication client or the extension unit.



(Glocalme G3)




(Glocalme G3)



(Glocalme G3)

Claim 5	uCloudlink Accused System and Method
[5pre] The authentication bank of claim 1, the memory comprising instructions executable by at least one of the one or more processors for:	See [1pre].
[5a] sending the subscriber identity information and the authentication information to	uCloudlink's Accused System and Method comprise sending the subscriber identity information and the authentication information to the foreign wireless communication client or the extension unit, wherein the subscriber identity information and the authentication information are stored by



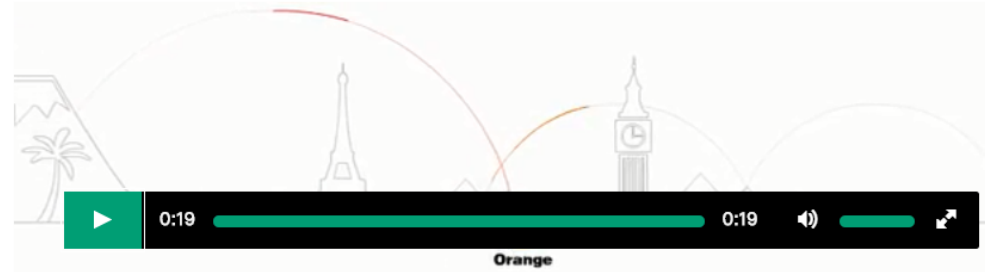
<p>the foreign wireless communication client or the extension unit, wherein the subscriber identity information and the authentication information are stored by the foreign wireless communication client or the extension unit.</p>	<p>the foreign wireless communication client or the extension unit.</p>  <p>(Glocalme G3)</p>
Claim 7	uCloudlink Accused System and Method
<p>[7] The authentication bank of claim 1, wherein the first request for authentication information further comprises at least one of a unique subscriber identifier, a wireless communication</p>	<p>In uCloudlink's Accused System and Method the first request for authentication information further comprises at least one of a unique subscriber identifier (e.g., user name), a wireless communication client identifier (e.g., IMEI identifier), a password, and a current location of the foreign wireless communication client or the extension unit (e.g., information needed for the server to select the appropriate local SIM profile).</p>

client identifier, a password, and a current location of the foreign wireless communication client or the extension unit.



(Glocalme G3)



## How it works



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Claim 8	uCloudlink Accused System and Method
<p>[8pre] A wireless communication client or extension unit comprising a plurality of memory, processors, programs, communication circuitry, authentication data stored on a subscribed identify module (SIM) card and/or in memory and non-local calls database, at least one of the plurality of programs stored in the memory comprises instructions executable by at least one of the plurality of processors for:</p>	<p>To the extent the preamble is determined to be limiting, uCloudlink's Accused System and Method comprise a wireless communication client (e.g., a Wifi hotspot device or a mobile phone) or extension unit (e.g., a Wifi hotspot device) comprising a plurality of memory, processors, programs, communication circuitry (e.g., as shown on the circuit board below), authentication data stored on a subscribed identify module (SIM) card (e.g., as shown on the circuit board below) and/or in memory and non-local calls database, at least one of the plurality of programs stored in the memory comprises instructions executable by at least one of the plurality of processors.</p> 

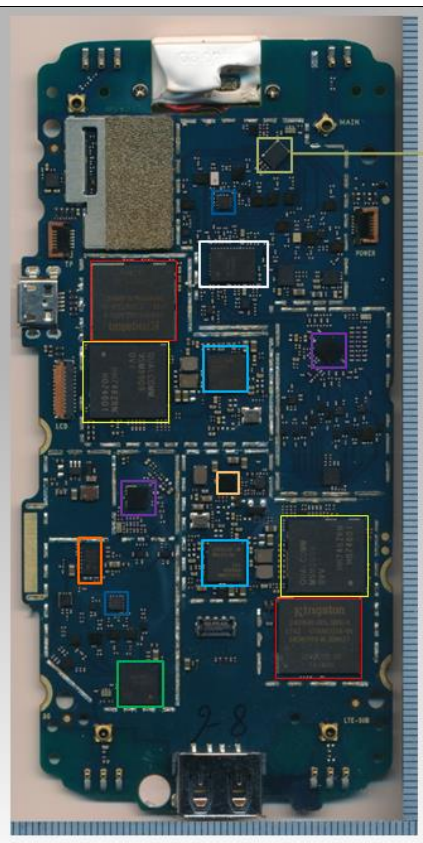
(Source: <https://www.glocalme.com/mall/wifi?type=g3&giso=US>)



(Source: [https://www.amazon.com/GlocalMe-Hotspot-Upgraded-Worldwide-International/dp/B072KKF37M/ref=sr\\_1\\_3?ie=UTF8&qid=1528224511&sr=8-3&keywords=glocalme](https://www.amazon.com/GlocalMe-Hotspot-Upgraded-Worldwide-International/dp/B072KKF37M/ref=sr_1_3?ie=UTF8&qid=1528224511&sr=8-3&keywords=glocalme))



(Source: <https://www.glocalme.com/mall/wifi?type=inside&giso=US>)

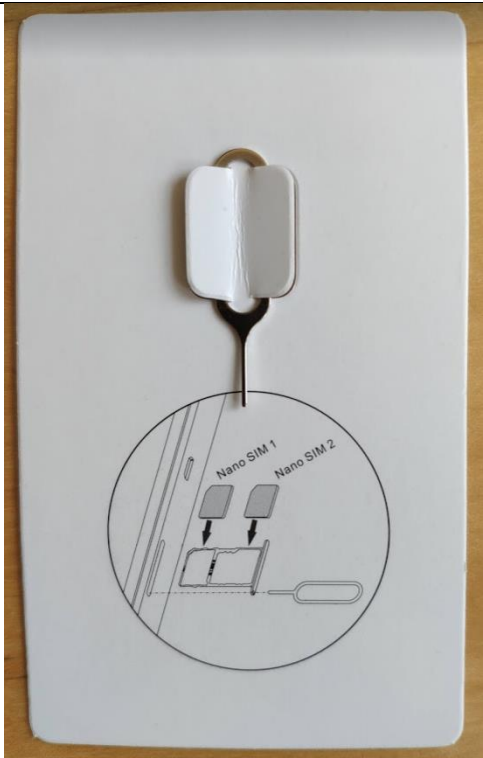


(Glocalme G3)



(Glocalme G3, showing SIM card)



	 <p>(Glocalme G3 Instructions)</p>
<p>[8a] enabling an initial setting of the wireless communication client or the extension unit and a remote administration system;</p>	<p>uCloudlink's Accused System and Method comprise enabling an initial setting (e.g., registration, activation and/or login) of the wireless communication client or the extension unit and a remote administration system.</p>

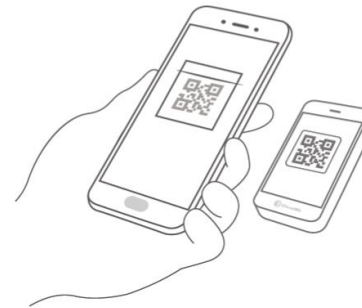
## 2 Register a GlocalMe Account (in APP)

- Press **Login** → **Register**
- Follow the step to register an account  
(You can register by email or mobile number)



## 4 G3 Activation

- Open GlocalMe APP
- Press **My Device** → **Activate Device**
- Scan the QR-Code (Step 3) on G3
- Re-start your G3 after activation success



(Source: <https://www.glocalme.com/service/instruction>)

< Register by E-mail

Register by E-mail


Password

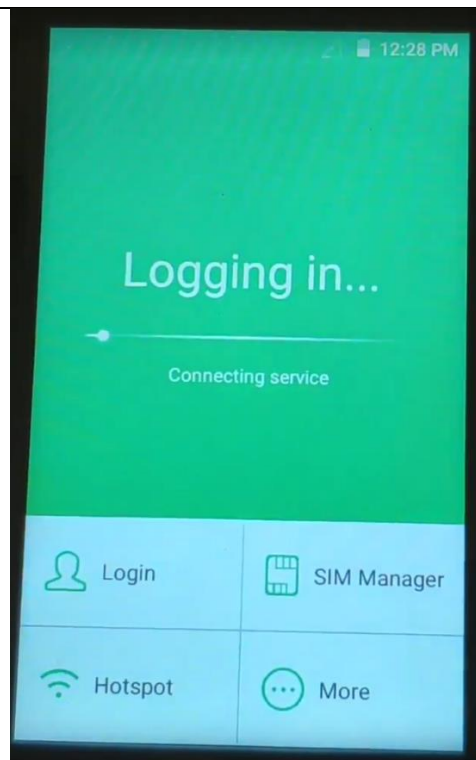
Place of residence United States of America >

☐ I agree to the [User Agreement](#) and [Privacy Policy](#)

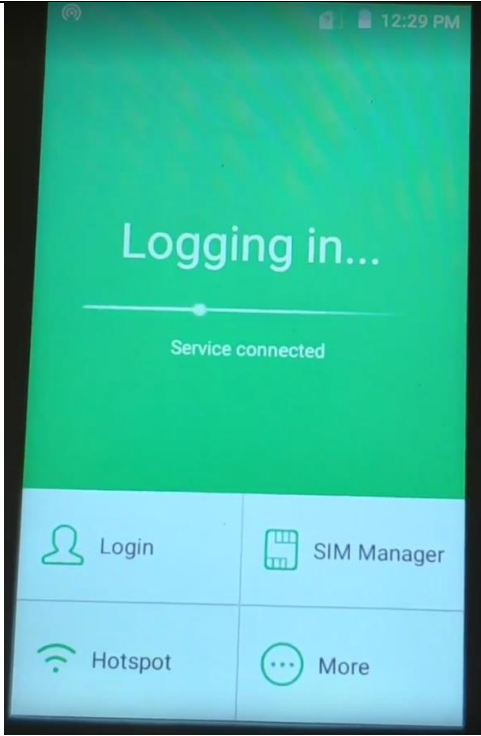
Register

(Glocalme App)

	 <p>(Glocalme G3)</p>
<p>[8b] establishing a data communication link to transmit information among the wireless communication client or the extension unit, and the remote administration system;</p>	<p>uCloudlink's Accused System and Method comprise establishing a data communication link to transmit information among the wireless communication client or the extension unit, and the remote administration system (e.g., connecting to service).</p>



(Glocalme G3)

	 <p>(GlocalMe G3)</p>
<p>[8c] establishing a local authentication information request in response to a local authentication request by a local cellular communication network, wherein the local authentication information request comprises information regarding the local authentication request for local authentication</p>	<p>uCloudlink's Accused System and Method comprise establishing a local authentication information request (e.g., request sent to the server to authenticate the "cloud SIM") in response to a local authentication request by a local cellular communication network (e.g., authentication request compliant with 2G, 3G, 4G and/or 5G standards), wherein the local authentication information request comprises information regarding the local authentication request for local authentication information received by the foreign wireless communication client or the extension unit from the local cellular communication network, and wherein the data communication link is distinct from the local cellular communication network (e.g., different cell service providers).</p>

information received by the foreign wireless communication client or the extension unit from the local cellular communication network, and wherein the data communication link is distinct from the local cellular communication network;

**Page 10**  
**GSM 03.20 - version 3.3.2 : January 1991**

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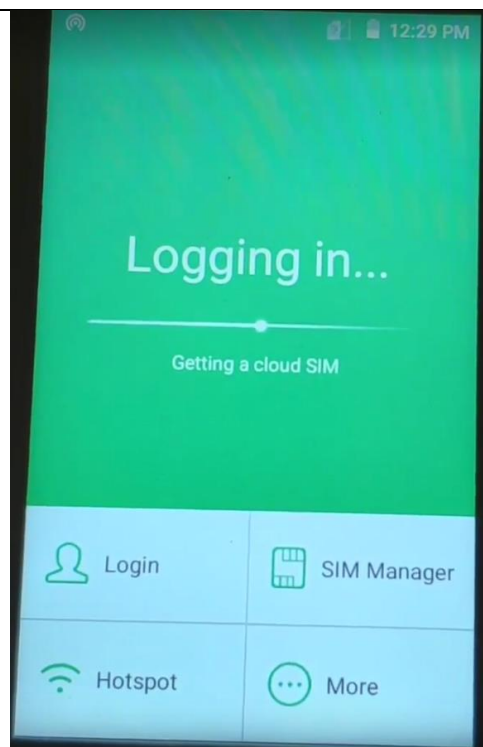
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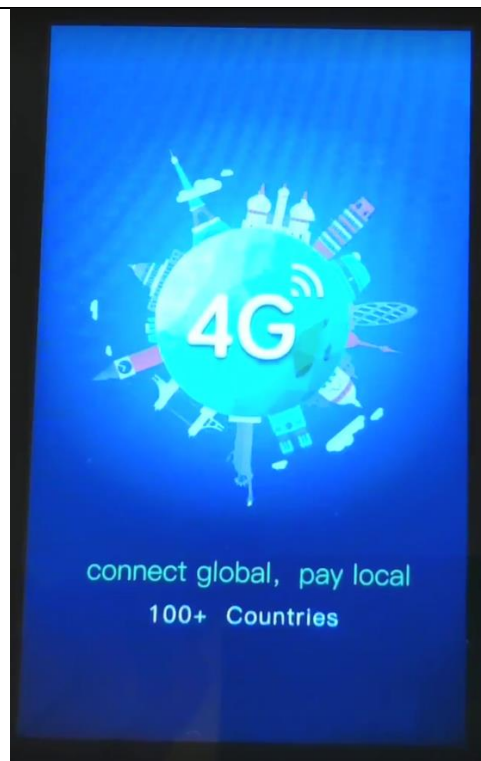
The authentication procedure consists in the following exchange between the fixed sub-system and the MS.

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(Source: [https://www.etsi.org/deliver/etsi\\_gts/03/0320/03.03.02\\_60/gsmmts\\_0320sv030302p.pdf](https://www.etsi.org/deliver/etsi_gts/03/0320/03.03.02_60/gsmmts_0320sv030302p.pdf))



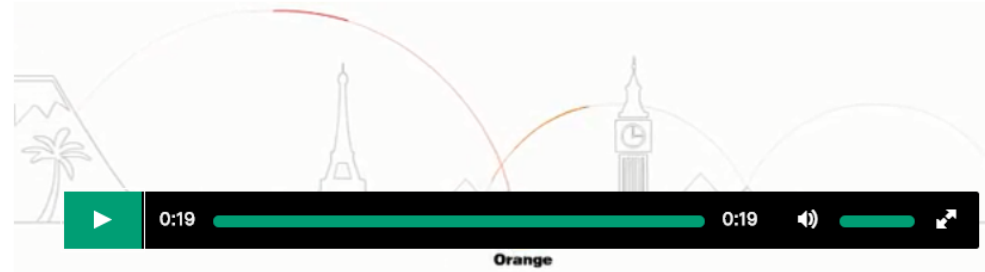
(Glocalme G3)



(Glocalme G3)



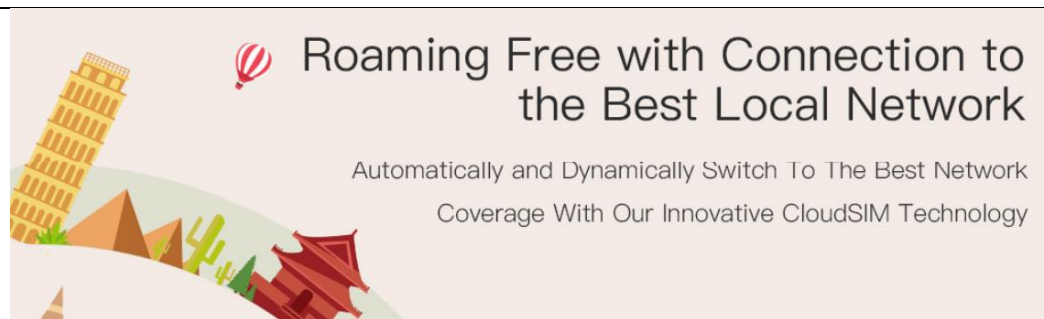
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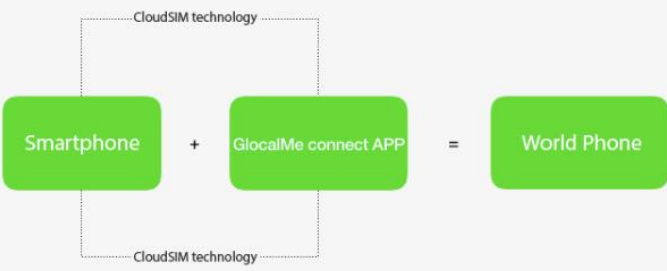


(Source: <https://www.glocalme.com/mall/wifi?type=g3&qiso=US>)



S1


**GlocalMe® Inside Global Mobile Data Solution**



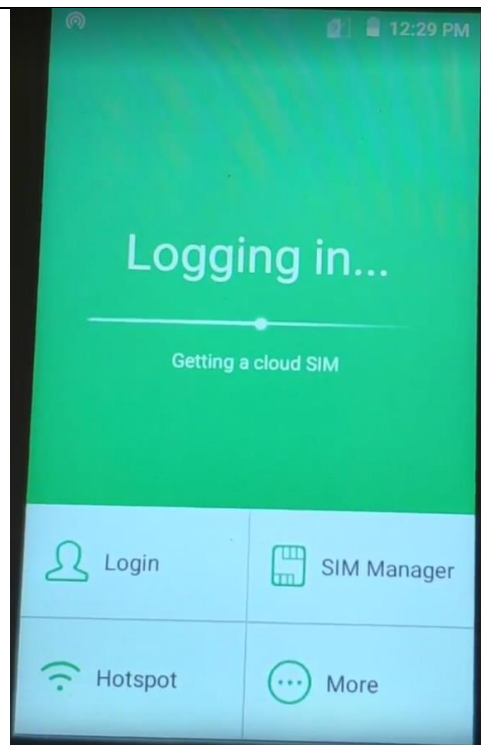
Smartphone + GlocalMe connect APP = World Phone

CloudSIM technology

(Source: <https://www.ucloudlink.com/html/world-phone/>)

	<p>Superfast 4G Internet connectivity</p>  <p>GlocalMe intelligently switches to the best network provider where you are for the fastest and most stable connection possible.</p> <p>(Source: <a href="https://www.glocalme.com/?giso=US">https://www.glocalme.com/?giso=US</a>)</p>
<p>[8d] relaying the local authentication information request to the remote administration system via the data communication link</p>	<p>uCloudlink's Accused System and Method comprise relaying the local authentication information request (e.g., request sent to the server to authenticate the "cloud SIM") to the remote administration system (e.g., uCloudlink's "PaaS" platform) via the data communication link and obtaining suitable local authentication information from the remote administration system via the data communication link.</p>

and obtaining suitable local authentication information from the remote administration system via the data communication link;

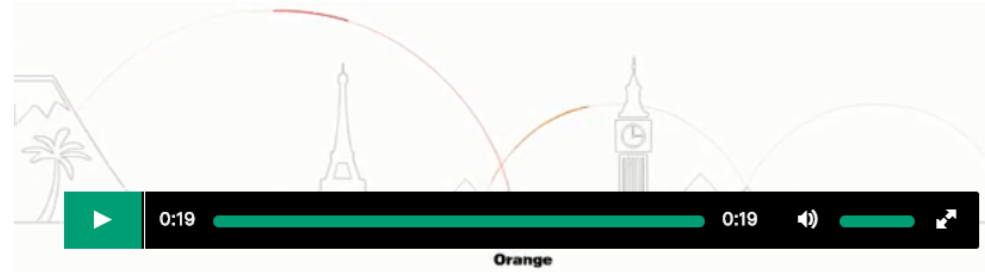


(Glocalme G3)



(Glocalme G3)

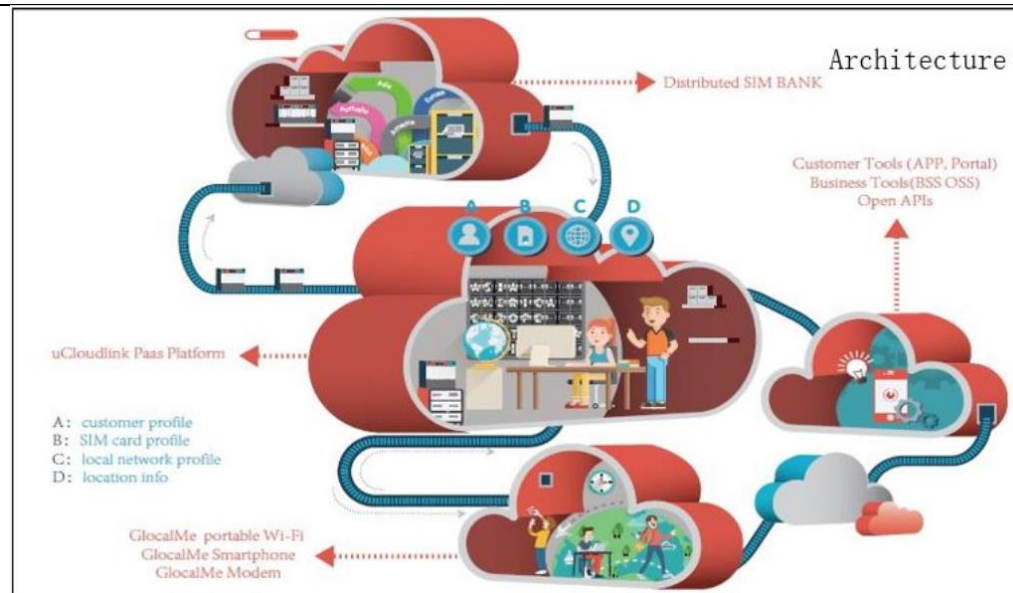
## How it works



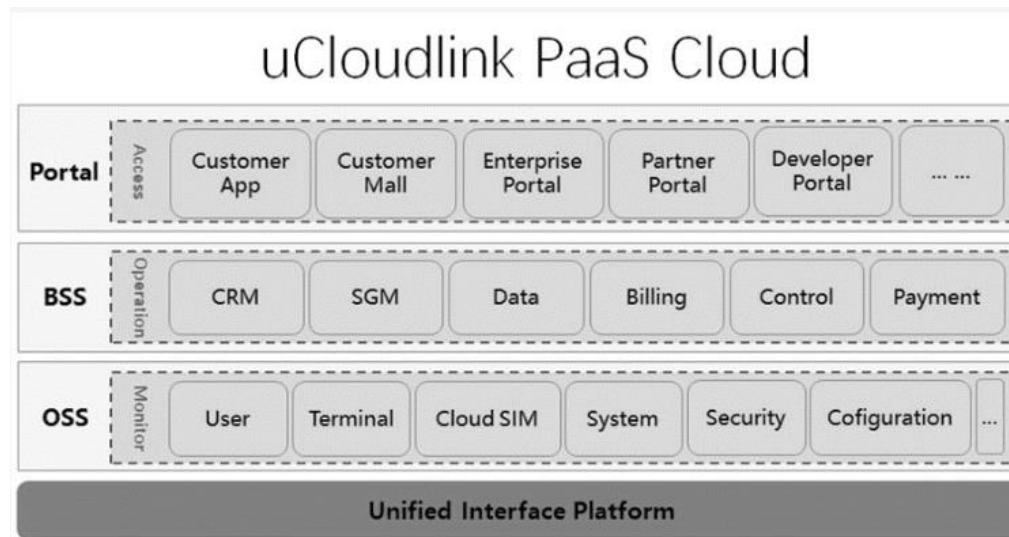
### Cloud SIM - The smart switch between mobile networks in over 100 countries

Through our patented Cloud SIM technology, GlocalMe taps into a world's worth of SIM cards that are located throughout the globe. Our SIM cloud continues to grow leaps and bounds as we tap into new countries. By turning on the G2, your device will find the most optimal network and the corresponding SIM card in the cloud SIM which starts to convert the local mobile connection into Wi-Fi signals, making sure that it's within "domestic" roaming boundaries, and saving you, the user, from international charges.

(Source: <https://www.kickstarter.com/projects/787756203/glocalme-kills-sim-card-and-roaming-pains/description>)

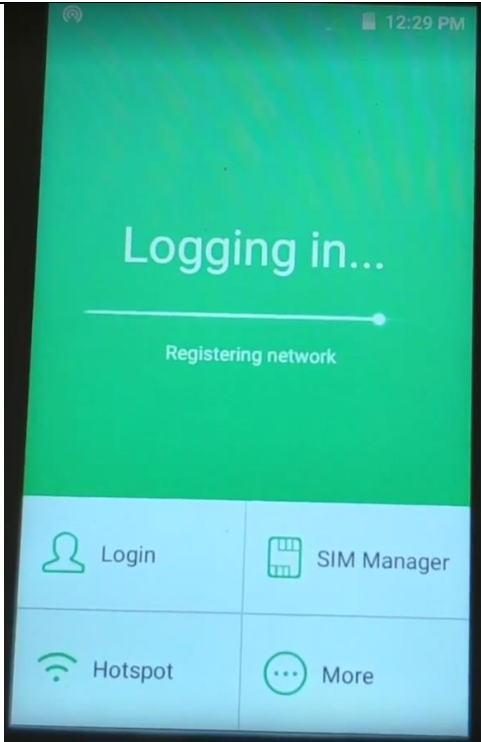


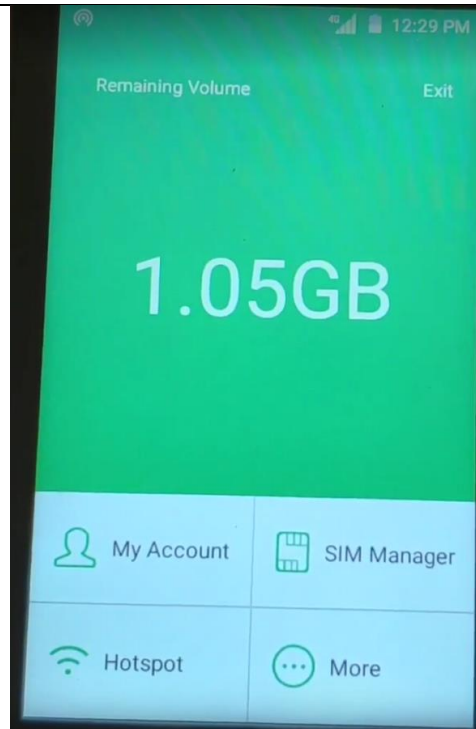
(Source: <https://www.ucloudlink.com/html/paas-platform/>)





<p>[8e] establishing local wireless services provided by the local cellular communication network to the wireless communication client or the extension unit by sending the local authentication information obtained from the remote administration system to the local cellular communication network over signal link; and</p>	<p>(Source: <a href="https://www.ucloudlink.com/html/paas-platform/">https://www.ucloudlink.com/html/paas-platform/</a>)</p> <p>uCloudlink's Accused System and Method comprise establishing local wireless services provided by the local cellular communication network to the wireless communication client or the extension unit (e.g., registration with local network) by sending the local authentication information (e.g., authentication response compliant with 2G, 3G, 4G and/or 5G standards) obtained from the remote administration system to the local cellular communication network over signal link.</p> <p><b>Page 10</b> <b>GSM 03.20 - version 3.3.2 : January 1991</b></p> <p><b>3. SUBSCRIBER IDENTITY AUTHENTICATION</b></p> <p><b>3.1 Generality</b></p> <p>Definition and operational requirements of subscriber identity authentication are given in Recommendation GSM 02.09.</p> <p>The authentication procedure will be also used to perform the cipher key-setting (see Section 4) on dedicated signalling channels. Therefore, it is performed after the subscriber identity (TMSI/IMSI) is known by the network and before the channel is encrypted.</p> <p>Two network functions are necessary: the authentication procedure itself, and the key management inside the fixed sub-system.</p> <p><b>3.2 The authentication procedure</b></p> <p>The authentication procedure consists in the following exchange between the fixed sub-system and the MS.</p> <ul style="list-style-type: none"> <li>- The fixed sub-system transmits a non-predictable number RAND to the MS.</li> <li>- The MS computes the signature of RAND, say SRES, using algorithm A3, and some secret information : the Subscriber Authentication Key, denoted Ki in the sequel.</li> <li>- The MS transmits the signature SRES to the fixed sub-system.</li> <li>- The fixed sub-system tests SRES for validity.</li> </ul> <p>(Source: <a href="https://www.etsi.org/deliver/etsi_gts/03/0320/03.03.02_60/gsm03_0320sv030302p.pdf">https://www.etsi.org/deliver/etsi_gts/03/0320/03.03.02_60/gsm03_0320sv030302p.pdf</a>)</p>
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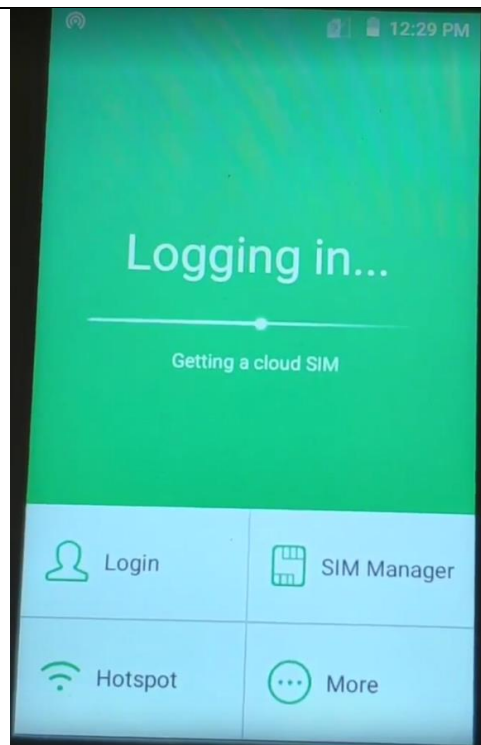
	 <p>(Glocalme G3)</p>
<p>[8f] providing a communication service to the wireless communication client or the extension unit according to the established local wireless services.</p>	<p>uCloudlink's Accused System and Method comprise providing a communication service (e.g., data and/or voice services) to the wireless communication client or the extension unit according to the established local wireless services.</p>




(Glocalme G3)

Claim 10	uCloudlink Accused System and Method
10. The wireless communication client or extension unit of claim 8, the memory comprising instructions executable by at least one of the one or more processors for:	See [8pre].
storing the local authentication information;	uCloudlink's Accused System and Method comprise storing the local authentication information (e.g., authentication information associated with cloud SIM).

and



(Glocalme G3)

	 <p>(Glocalme G3)</p>
<p>relaying the stored local authentication information to the local cellular communication network when the local cellular communication network attempts to re-authenticate the local authentication information.</p>	<p>uCloudlink's Accused System and Method comprise relaying the stored local authentication information to the local cellular communication network when the local cellular communication network attempts to re-authenticate the local authentication information (e.g., re-authentication compliant with 2G, 3G, 4G and/or 5G standards.)</p>

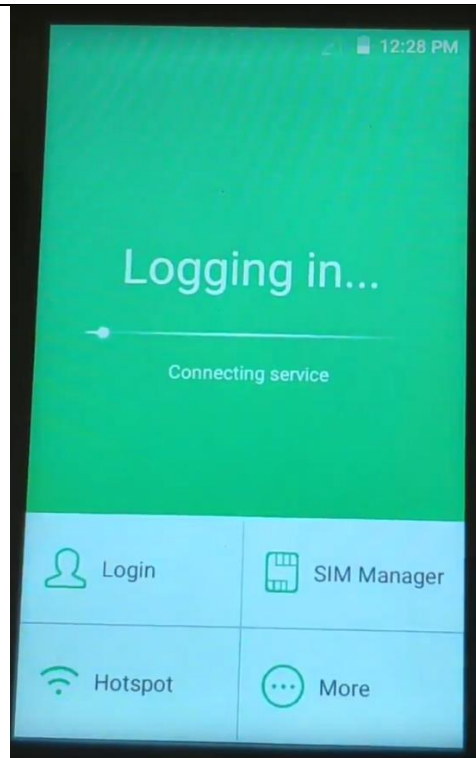
	<p><b>Page 10</b>  <b>GSM 03.20 - version 3.3.2 : January 1991</b></p> <p><b>3. SUBSCRIBER IDENTITY AUTHENTICATION</b></p> <p><b>3.1 Generality</b></p> <p>Definition and operational requirements of subscriber identity authentication are given in Recommendation GSM 02.09.</p> <p>The authentication procedure will be also used to perform the cipher key-setting (see Section 4) on dedicated signalling channels. Therefore, it is performed after the subscriber identity (TMSI/IMSI) is known by the network and before the channel is encrypted.</p> <p>Two network functions are necessary: the authentication procedure itself, and the key management inside the fixed sub-system.</p> <p><b>3.2 The authentication procedure</b></p> <p>The authentication procedure consists in the following exchange between the fixed sub-system and the MS.</p> <ul style="list-style-type: none"> <li>- The fixed sub-system transmits a non-predictable number RAND to the MS.</li> <li>- The MS computes the signature of RAND, say SRES, using algorithm A3, and some secret information : the Subscriber Authentication Key, denoted Ki in the sequel.</li> <li>- The MS transmits the signature SRES to the fixed sub-system.</li> <li>- The fixed sub-system tests SRES for validity.</li> </ul> <p>(Source: <a href="https://www.etsi.org/deliver/etsi_gts/03/0320/03.03.02_60/gsmmts_0320sv030302p.pdf">https://www.etsi.org/deliver/etsi_gts/03/0320/03.03.02_60/gsmmts_0320sv030302p.pdf</a>)</p>
<b>Claim 11</b>	<b>uCloudlink Accused System and Method</b>
[11pre] The wireless communication client or extension unit of claim 8, the memory comprising instructions executable by at least one of the one or more processors for:	See [8pre].

[11a] relaying verification information to the remote administration system, wherein the verification information identifies the wireless communication client or extension unit as being associated with a user account of the remote administration system.

uCloudlink's Accused System and Method comprise relaying verification information (e.g., login information) to the remote administration system, wherein the verification information identifies the wireless communication client or extension unit as being associated with a user account of the remote administration system.



(Glocalme G3)



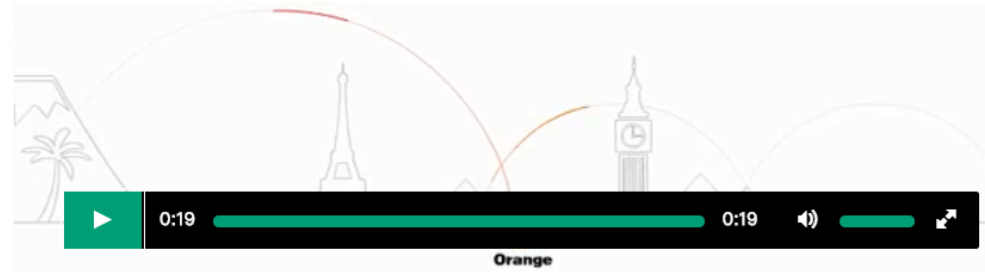
(Glocalme G3)

Claim 12	uCloudlink Accused System and Method
<p>[12] The wireless communication client or extension unit of claim 8, wherein the wireless communication client or the extension unit comprises a foreign wireless communication device not subscribed to the local</p>	<p>In uCloudlink's Accused System and Method the wireless communication client or the extension unit comprises a foreign wireless communication device not subscribed to the local network (e.g., a Wifi hotspot device or a mobile phone brought by an international traveler to a foreign country).</p>



network.

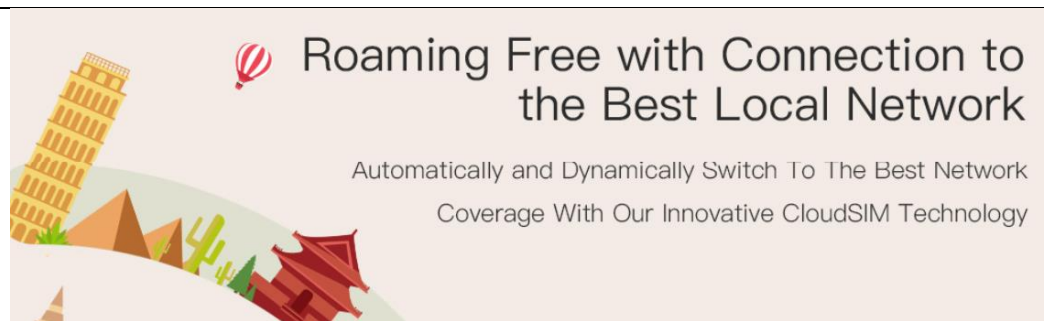
## How it works



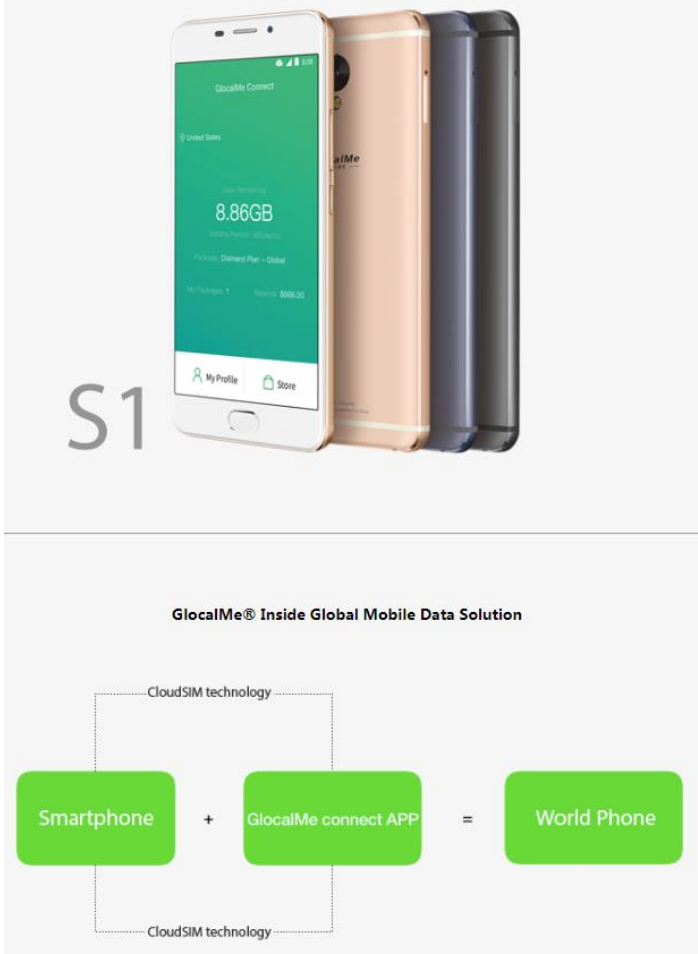
### Cloud SIM - The smart switch between mobile networks in over 100 countries

Through our patented Cloud SIM technology, GlocalMe taps into a world's worth of SIM cards that are located throughout the globe. Our SIM cloud continues to grow leaps and bounds as we tap into new countries. By turning on the G2, your device will find the most optimal network and the corresponding SIM card in the cloud SIM which starts to convert the local mobile connection into Wi-Fi signals, making sure that it's within "domestic" roaming boundaries, and saving you, the user, from international charges.

(Source: <https://www.kickstarter.com/projects/787756203/glocalme-kills-sim-card-and-roaming-pains/description>)



(Source: <https://www.glocalme.com/mall/wifi?type=g3&qiso=US>)

	 <p>The advertisement for the GlocalMe S1 features a smartphone with a green screen displaying 'GlocalMe Connect', 'United States', '8.86GB', and 'My Profile' and 'Store' icons. To the right are three more phones in gold, blue, and black. Below this, a diagram titled 'GlocalMe® Inside Global Mobile Data Solution' shows a flow: 'Smartphone' + 'GlocalMe connect APP' = 'World Phone'. Dashed lines labeled 'CloudSIM technology' connect the smartphone and the app, and the app and the world phone.</p> <p>(Source: <a href="https://www.ucloudlink.com/html/world-phone/">https://www.ucloudlink.com/html/world-phone/</a>)</p>
Claim 13	uCloudlink Accused System and Method
[13pre] The wireless communication client or	See [8pre].

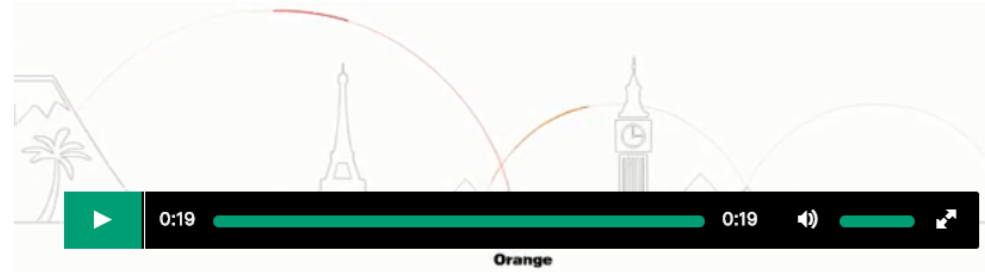
<p>extension unit of claim 8, wherein the memory comprising instructions executable by at least one of the one or more processors for:</p>	
<p>[13a] requesting access to a desired local wireless service by sending a request to the local cellular communication network over a signal link.</p>	<p>uCloudlink's Accused System and Method comprise requesting access to a desired local wireless service by sending a request to the local cellular communication network over a signal link (e.g., a request to register with the local cell network compliant with 2G, 3G, 4G and/or 5G standards).</p> <p><b>Page 10</b>  <b>GSM 03.20 - version 3.3.2 : January 1991</b></p> <p><b>3. SUBSCRIBER IDENTITY AUTHENTICATION</b></p> <p><b>3.1 Generality</b></p> <p>Definition and operational requirements of subscriber identity authentication are given in Recommendation GSM 02.09.</p> <p>The authentication procedure will be also used to perform the cipher key-setting (see Section 4) on dedicated signalling channels. Therefore, it is performed after the subscriber identity (TMSI/IMSI) is known by the network and before the channel is encrypted.</p> <p>Two network functions are necessary: the authentication procedure itself, and the key management inside the fixed sub-system.</p> <p><b>3.2 The authentication procedure</b></p> <p>The authentication procedure consists in the following exchange between the fixed sub-system and the MS.</p> <ul style="list-style-type: none"> <li>- The fixed sub-system transmits a non-predictable number RAND to the MS.</li> <li>- The MS computes the signature of RAND, say SRES, using algorithm A3, and some secret information : the Subscriber Authentication Key, denoted Ki in the sequel.</li> <li>- The MS transmits the signature SRES to the fixed sub-system.</li> <li>- The fixed sub-system tests SRES for validity.</li> </ul>

	(Source: <a href="https://www.etsi.org/deliver/etsi_gts/03/0320/03.03.02_60/gsmst_0320sv030302p.pdf">https://www.etsi.org/deliver/etsi_gts/03/0320/03.03.02_60/gsmst_0320sv030302p.pdf</a> )
<b>Claim 14</b>	<b>uCloudlink Accused System and Method</b>
[14] The wireless communication client or extension unit of claim 8, wherein the local authentication information request for authentication information further comprises at least one of a unique subscriber identifier, a wireless communication client identifier, a password, and a current location of the foreign wireless communication client or the extension unit.	In uCloudlink's Accused System and Method the local authentication information request for authentication information further comprises at least one of a unique subscriber identifier (e.g., user name), a wireless communication client identifier (e.g., IMEI identifier), a password, and a current location of the foreign wireless communication client or the extension unit (e.g., information needed for the server to select the appropriate local SIM profile).



(Glocalme G3)



## How it works



### Cloud SIM - The smart switch between mobile networks in over 100 countries

Through our patented Cloud SIM technology, GlocalMe taps into a world's worth of SIM cards that are located throughout the globe. Our SIM cloud continues to grow leaps and bounds as we tap into new countries. By turning on the G2, your device will find the most optimal network and the corresponding SIM card in the cloud SIM which starts to convert the local mobile connection into Wi-Fi signals, making sure that it's within "domestic" roaming boundaries, and saving you, the user, from international charges.

(Source: <https://www.kickstarter.com/projects/787756203/glocalme-kills-sim-card-and-roaming-pains/description>)

	 <p>(Source: <a href="https://www.glocalme.com/mall/wifi?type=g3&amp;qiso=US">https://www.glocalme.com/mall/wifi?type=g3&amp;qiso=US</a>)</p>
Claim 19	uCloudlink Accused System and Method
<p>[19pre] A method for operating a mobile telecommunications device in a communication network, comprising:</p>	<p>To the extent the preamble is determined to be limiting, uCloudlink's Accused System and Method comprise a method for operating a mobile telecommunications device (e.g., a Wifi hotspot device or a mobile phone) in a communication network.</p>  <p>(Source: <a href="https://www.glocalme.com/mall/wifi?type=g3&amp;qiso=US">https://www.glocalme.com/mall/wifi?type=g3&amp;qiso=US</a>)</p>





(Source: [https://www.amazon.com/GlocalMe-Hotspot-Upgraded-Worldwide-International/dp/B072KKF37M/ref=sr\\_1\\_3?ie=UTF8&qid=1528224511&sr=8-3&keywords=glocalme](https://www.amazon.com/GlocalMe-Hotspot-Upgraded-Worldwide-International/dp/B072KKF37M/ref=sr_1_3?ie=UTF8&qid=1528224511&sr=8-3&keywords=glocalme))

	 <p>(Source: <a href="https://www.glocalme.com/mall/wifi?type=inside&amp;qiso=US">https://www.glocalme.com/mall/wifi?type=inside&amp;qiso=US</a>)</p>
<p>[19a] receiving a first request, via a data channel, for associating a subscriber identity module (SIM) with a mobile telecommunications device, wherein the SIM is subscribed to a local carrier for a current location of the mobile telecommunications device and the mobile telecommunications device is not subscribed to the local carrier, and wherein the first request comprises information regarding a</p>	<p>uCloudlink's Accused System and Method comprise receiving a first request (e.g., request sent to the server to authenticate the "cloud SIM"), via a data channel, for associating a subscriber identity module (SIM) (e.g., a SIM located at uCloudlink's "PaaS" platform) with a mobile telecommunications device, wherein the SIM is subscribed to a local carrier for a current location of the mobile telecommunications device and the mobile telecommunications device is not subscribed to the local carrier, and wherein the first request comprises information regarding a second request (e.g., authentication request compliant with 2G, 3G, 4G and/or 5G standards) from the local carrier received by the mobile telecommunications device over a local cellular communication network for local authentication information.</p>

second request from the local carrier received by the mobile telecommunications device over a local cellular communication network for local authentication information;

**Page 10**  
**GSM 03.20 - version 3.3.2 : January 1991**

### **3. SUBSCRIBER IDENTITY AUTHENTICATION**

#### **3.1 Generality**

Definition and operational requirements of subscriber identity authentication are given in Recommendation GSM 02.09.

The authentication procedure will be also used to perform the cipher key-setting (see Section 4) on dedicated signalling channels. Therefore, it is performed after the subscriber identity (TMSI/IMSI) is known by the network and before the channel is encrypted.

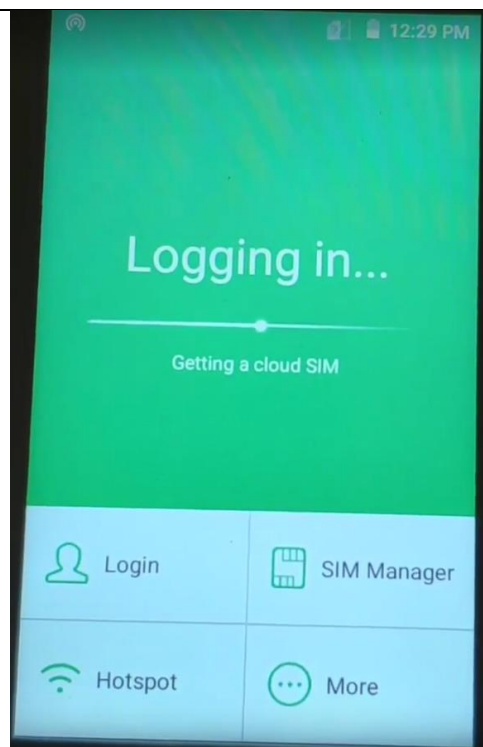
Two network functions are necessary: the authentication procedure itself, and the key management inside the fixed sub-system.

#### **3.2 The authentication procedure**

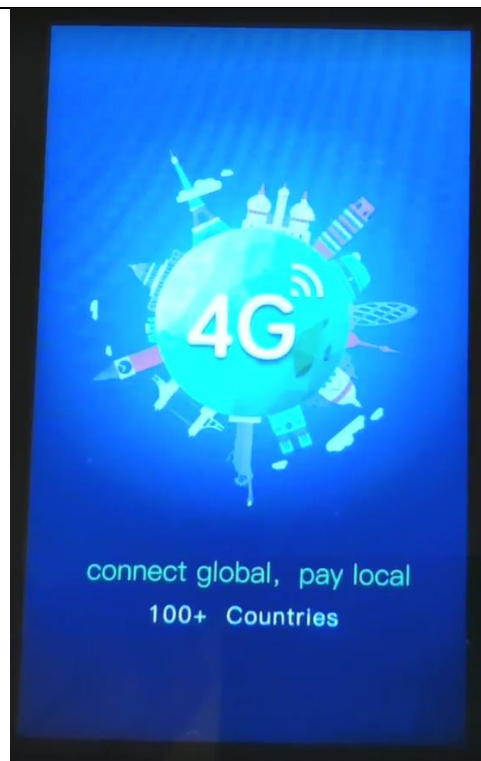
The authentication procedure consists in the following exchange between the fixed sub-system and the MS.

- The fixed sub-system transmits a non-predictable number RAND to the MS.
- The MS computes the signature of RAND, say SRES, using algorithm A3, and some secret information : the Subscriber Authentication Key, denoted Ki in the sequel.
- The MS transmits the signature SRES to the fixed sub-system.
- The fixed sub-system tests SRES for validity.

(Source: [https://www.etsi.org/deliver/etsi\\_gts/03/0320/03.03.02\\_60/gsmmts\\_0320sv030302p.pdf](https://www.etsi.org/deliver/etsi_gts/03/0320/03.03.02_60/gsmmts_0320sv030302p.pdf))

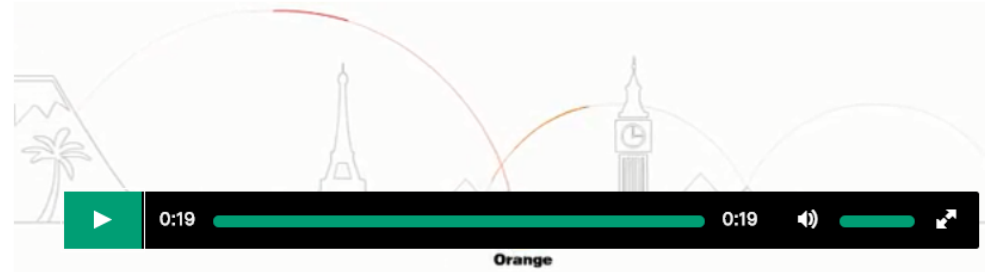


(Glocalme G3)



(Glocalme G3)

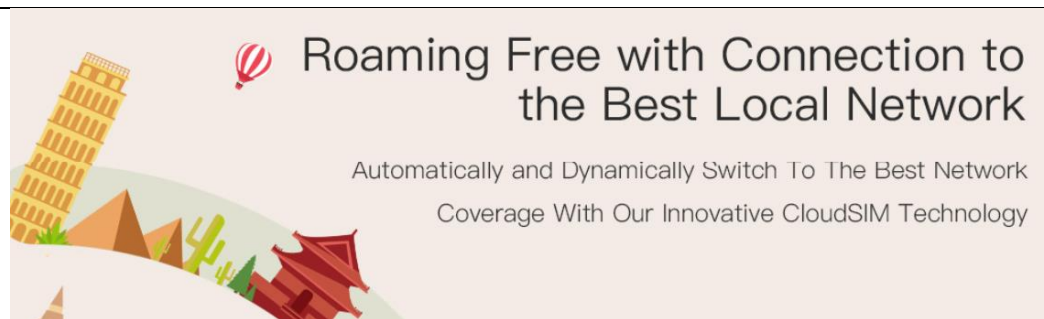
## How it works



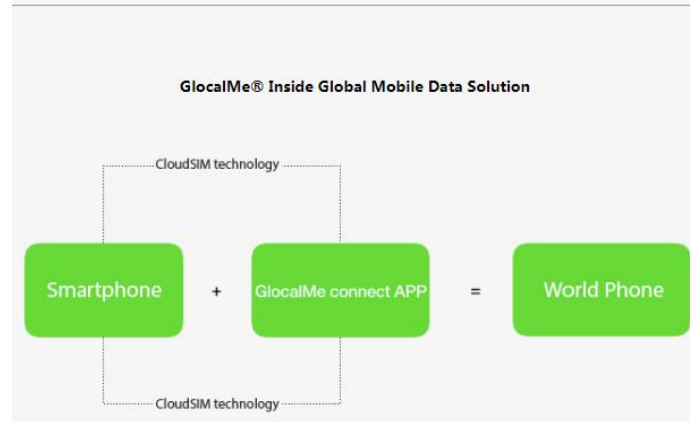
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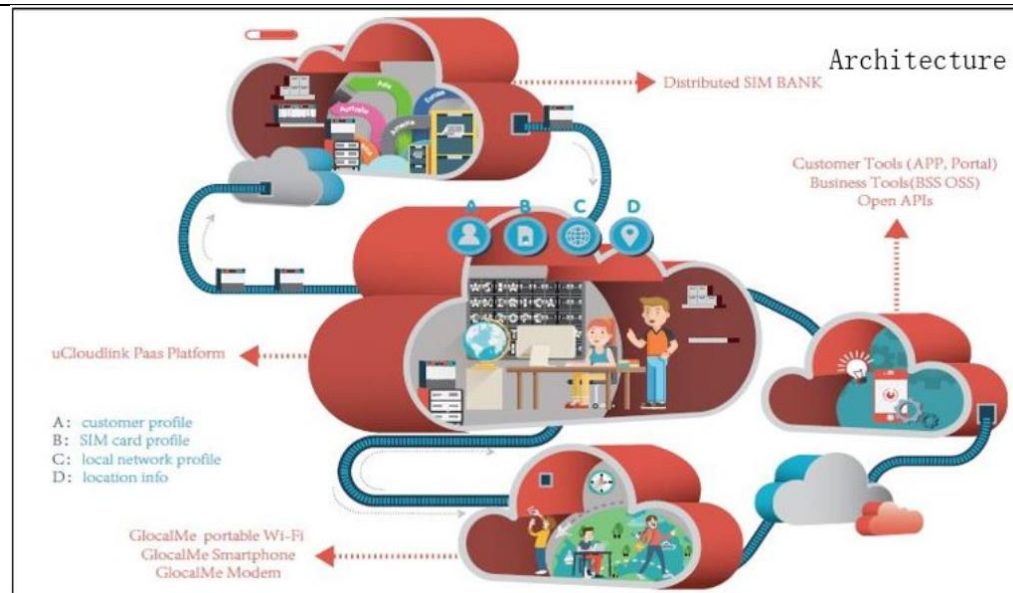


(Source: <https://www.glocalme.com/mall/wifi?type=g3&qiso=US>)

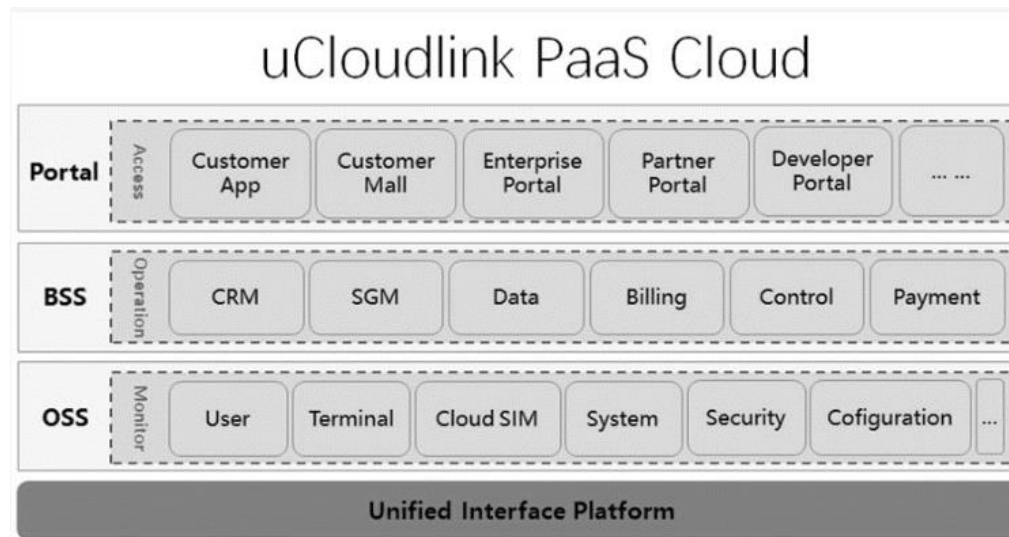


(Source: <https://www.ucloudlink.com/html/world-phone/>)

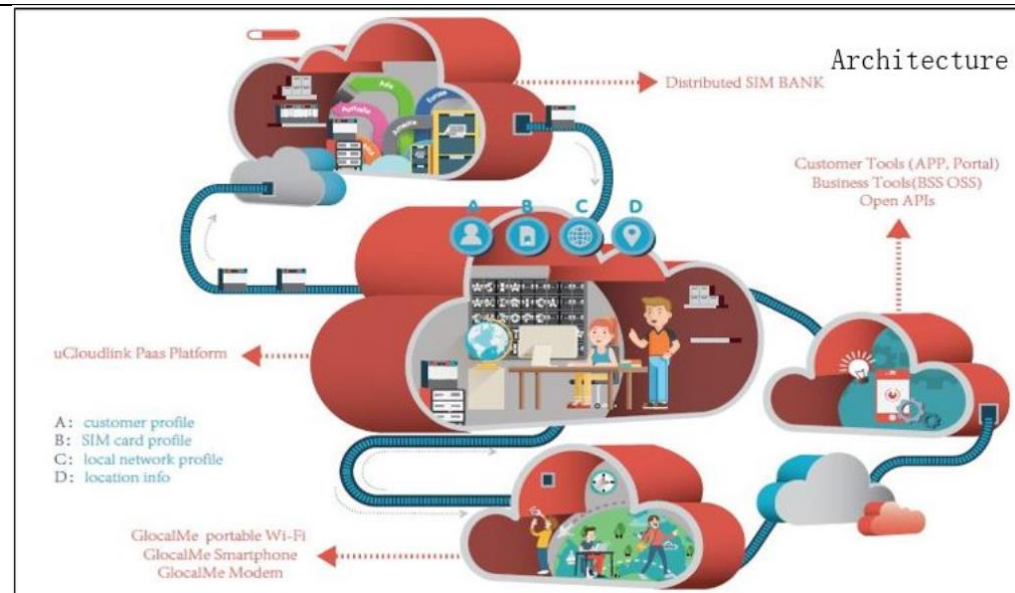




(Source: <https://www.ucloudlink.com/html/paas-platform/>)



	(Source: <a href="https://www.ucloudlink.com/html/paas-platform/">https://www.ucloudlink.com/html/paas-platform/</a> )
<p>[19b] retrieving authentication information for the mobile telecommunications device from the SIM in response to receiving the first request for associating the SIM with the mobile telecommunications device; and</p>	<p>uCloudlink's Accused System and Method comprises retrieving authentication information for the mobile telecommunications device from the SIM (e.g., a SIM located at uCloudlink's "PaaS" platform) in response to receiving the first request for associating the SIM with the mobile telecommunications device.</p> <p><b>Page 10</b>  <b>GSM 03.20 - version 3.3.2 : January 1991</b></p> <p><b>3. SUBSCRIBER IDENTITY AUTHENTICATION</b></p> <p><b>3.1 Generality</b></p> <p>Definition and operational requirements of subscriber identity authentication are given in Recommendation GSM 02.09.</p> <p>The authentication procedure will be also used to perform the cipher key-setting (see Section 4) on dedicated signalling channels. Therefore, it is performed after the subscriber identity (TMSI/IMSI) is known by the network and before the channel is encrypted.</p> <p>Two network functions are necessary: the authentication procedure itself, and the key management inside the fixed sub-system.</p> <p><b>3.2 The authentication procedure</b></p> <p>The authentication procedure consists in the following exchange between the fixed sub-system and the MS.</p> <ul style="list-style-type: none"> <li>- The fixed sub-system transmits a non-predictable number RAND to the MS.</li> <li>- The MS computes the signature of RAND, say SRES, using algorithm A3, and some secret information : the Subscriber Authentication Key, denoted Ki in the sequel.</li> <li>- The MS transmits the signature SRES to the fixed sub-system.</li> <li>- The fixed sub-system tests SRES for validity.</li> </ul> <p>(Source: <a href="https://www.etsi.org/deliver/etsi_gts/03/0320/03.03.02_60/gsmts_0320sv030302p.pdf">https://www.etsi.org/deliver/etsi_gts/03/0320/03.03.02_60/gsmts_0320sv030302p.pdf</a>)</p>

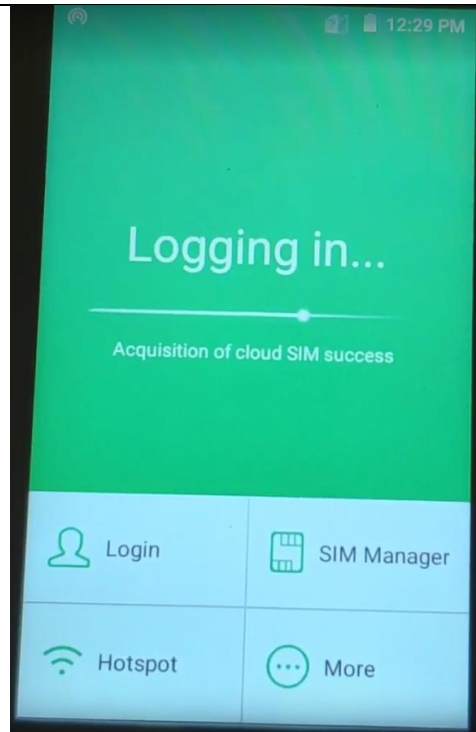


(Source: <https://www.ucloudlink.com/html/paas-platform/>)

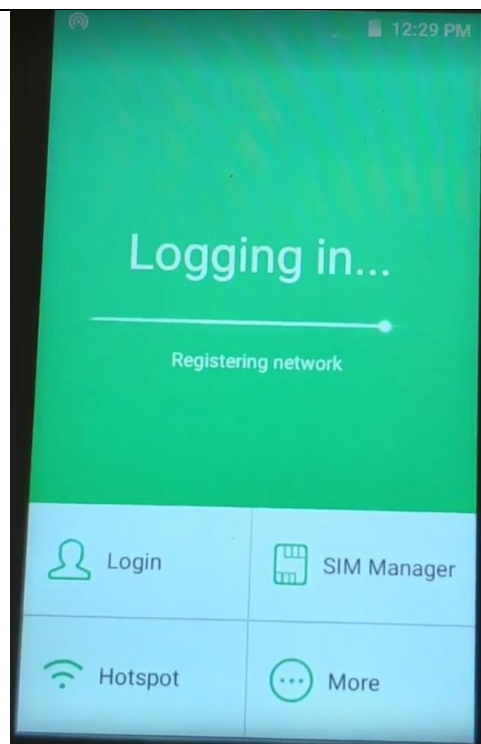
[19c] sending the authentication information to the mobile telecommunications device over the data channel, wherein the data channel is not associated with a local wireless service provided to a subscriber of the local carrier and wherein the authentication information for the mobile telecommunications device retrieved from the SIM is configured to be sent by the foreign wireless

uCloudlink's Accused System and Method comprises sending the authentication information to the mobile telecommunications device over the data channel, wherein the data channel is not associated with a local wireless service provided to a subscriber of the local carrier (e.g., different cell service providers) and wherein the authentication information for the mobile telecommunications device retrieved from the SIM is configured to be sent by the foreign wireless communication client or the extension unit to the local carrier over signal link of the local cellular communication network to provision a communication service from the local carrier for the mobile telecommunications device (e.g., registration with local network and provision of data and/or voice services).

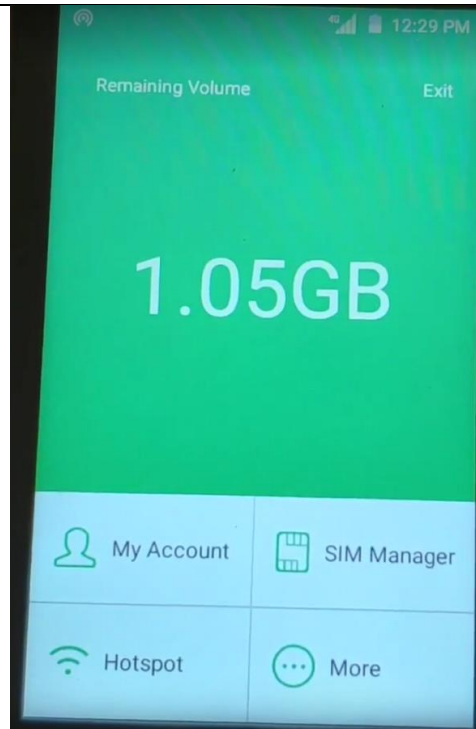
communication client or the extension unit to the local carrier over signal link of the local cellular communication network to provision a communication service from the local carrier for the mobile telecommunications device.



(Glocalme G3)



(Glocalme G3)



(Glocalme G3)

Claim 20	uCloudlink Accused System and Method
[20] The method of claim 19, wherein the mobile telecommunications device is a foreign wireless communications client or an extension unit.	In uCloudlink's Accused System and Method the mobile telecommunications device is a foreign wireless communications client (e.g., a Wifi hotspot device or a mobile phone) or an extension unit (e.g., a Wifi hotspot device).

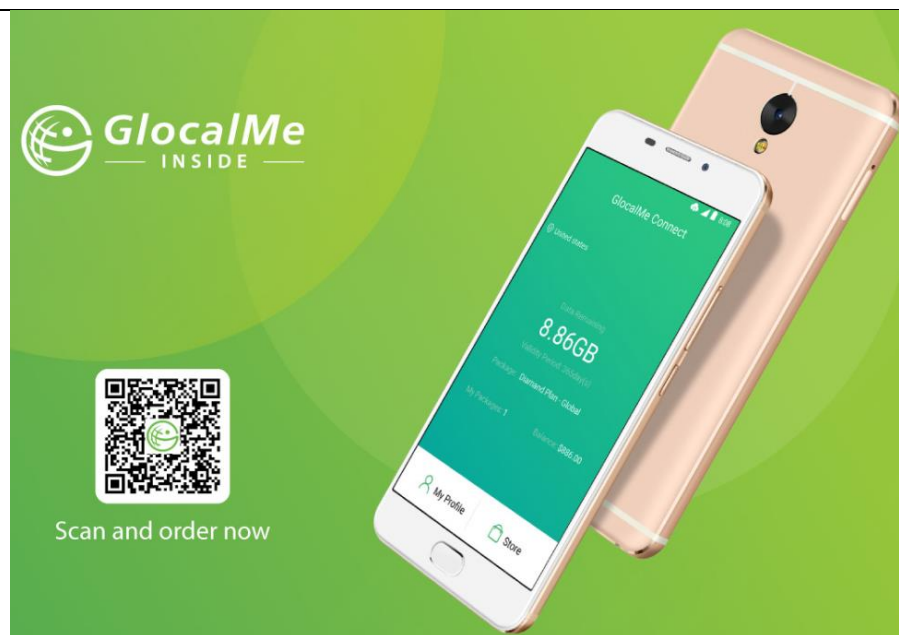


(Source: <https://www.glocalme.com/mall/wifi?type=g3&giso=US>)



(Source: [https://www.amazon.com/GlocalMe-Hotspot-Upgraded-Worldwide-International/dp/B072KKF37M/ref=sr\\_1\\_3?ie=UTF8&qid=1528224511&sr=8-3&keywords=glocalme](https://www.amazon.com/GlocalMe-Hotspot-Upgraded-Worldwide-International/dp/B072KKF37M/ref=sr_1_3?ie=UTF8&qid=1528224511&sr=8-3&keywords=glocalme))





(Source: <https://www.glocalme.com/mall/wifi?type=inside&qiso=US>)